



Quest **to** Learn
School for digital kids

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The Story of a School

In 2006 New Visions for Public Schools approached the Institute of Play with an idea. Would they design a new school based on their work with games and learning? Q2L (Q2L) is the result of this collaboration, a 6-12th grade school designed from the ground up for the kids of today—kids who are eager to learn, quest, and play. The school has been designed to help students to bridge old and new literacies through learning about the world as a set of interconnected systems. Design and innovation are two big ideas of the school, as is a commitment to deep content learning with a strong focus on learning in engaging, relevant ways. It is a place where digital media meets books and students learn to think like designers, inventors, mathematicians, and more. Q2L brings together teachers with a passion for content, a vision for helping kids to learn best, and a commitment to changing the way students will grow in the world.

The 6th grade Curriculum

The 6th grade curriculum has a core focus on the idea of “elements of a system,” and learning about how elements interact, how systems work to meet a goal, and what kinds of things are important to keeping systems in balance and sustained. In the first trimester, for example, students will be learning about geography as a system of elements that affect how things grow and survive; learning to see whole number operations as elements of mathematical systems, or that the rules of language (grammar and syntax) order elements in ways that allow us to communicate and express ideas. Students will be working with small machines and concepts of force and motion to understand their effect on the ability of a system to meet its goal. Last, students will be engaging with the big concept of balance—how do we order our bodies and minds in ways that help us to achieve balance, both as individuals and as a group?

Missions, which are challenge-based units with a bit of narrative flair, organize the curriculum into a series of smaller quests. Each quest poses a problem students have to learn to solve, either by gathering relevant resources, doing mathematical calculations, reading and analyzing texts, designing tools, repairing broken systems, creating models, doing scientific experiments, building games, or a host of other activities. Missions are approximately 10 weeks in length and culminate in a special unit called the Boss level. During the Boss level students are given a challenge the whole school works on together to solve, drawing on the knowledge and resources generated during the just-completed Missions. Boss levels are what we call “synthesizing spaces,” and provide opportunities both for students who need a little extra work or those seeking accelerated opportunities to extend their learning.

Reading and Writing across the Curriculum

Reading and writing in the 21st century requires that students work with text and language in a variety of contexts, through the use of a variety of tools. At Quest, reading and writing are integrated into every domain class; with special attention being paid to the different strategies students might need based on their learning styles. Students will work with scientific, mathematical, literary, primary sources, book-based and digital texts throughout the year.

Math as a Backbone

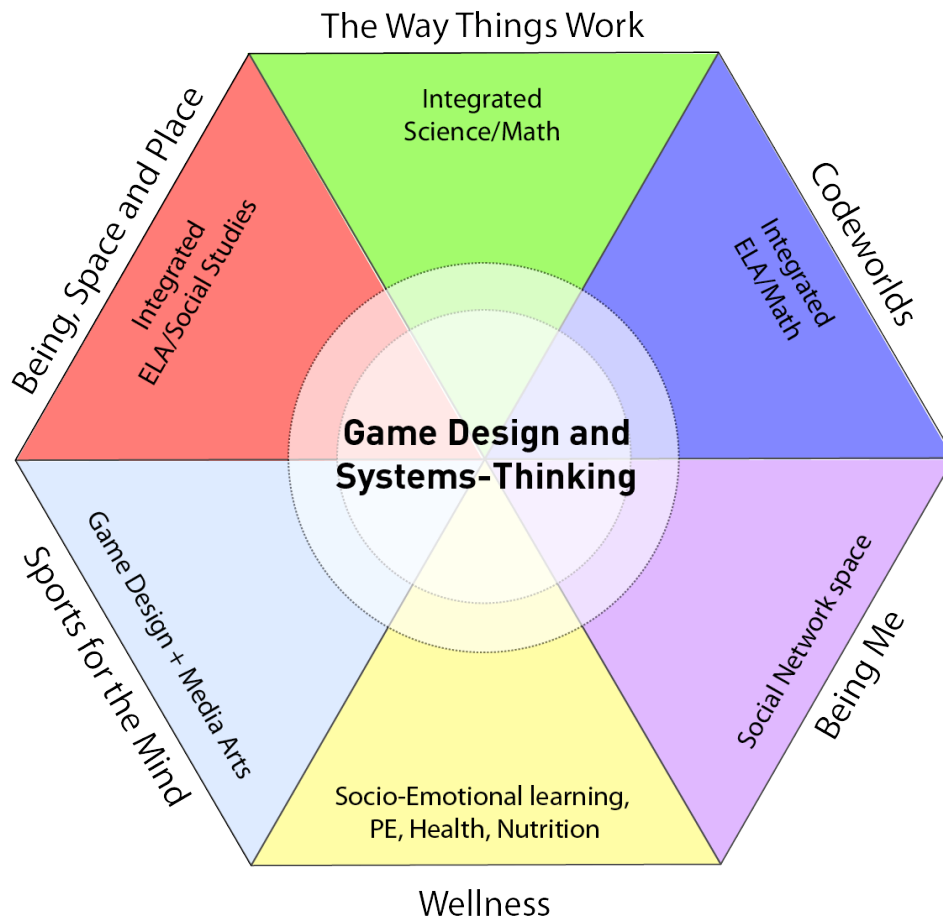
Q2L's 6th grade curriculum has been designed around "math as a backbone." This means we organized the overall curriculum around the main content, skills, and knowledge that make up the math state standards for middle school students. We did this because math requires a certain sequence to be followed—students have to learn fractions before learning how to convert them to decimals and percentages, for example. This sequence created a foundation that we built the rest of the curriculum around.

Wellness

Wellness is both a class and a philosophy at Quest. Throughout the curriculum and during the school day students gain practice in ways of understanding and managing their own health and wellness. Home Base, our daily small group advisory period that meets at the beginning and at the end of the day, is part of our Wellness program, as is Morning Meeting, a time when all members of the school get together and talk about issues affecting the school. In addition, PE, health, and nutrition are part of the Wellness curriculum.

Integrated Domains: Classes at Q2L

At Quest students learn standards-based content within classes that we call domains. These domains organize disciplinary knowledge in 21st century ways—around synthesizing big ideas that connect knowledge and skills in two or more subjects, like math and science, or ELA and social studies. Domain classes are designed in game-like ways that enable students to take on different roles like mathematicians, scientists, and explorers as they learn new things.



Overview of Curriculum Domains

Domain	Definition
The Way Things Work (Math/Science)	<p>Students practice taking different kinds of systems apart and modifying, remixing, and inventing systems of their own. Students learn about system structure and dynamics, through hands-on work with concrete applications, such as breaking down small machines in science. Students design systems and make measurements that are relevant to improving the quality of their lives. Through the use of different systems like games, models, digital simulations, and stories, students learn to engage with their world holistically, providing strategies for participating and creating change in the world.</p>
Being, Space and Place (Social Studies/English Language Arts)	<p>Students consider time, space, and human geographies as forces shaping the development of ideas, expression, and values. Within Being, Space and Place students are challenged to see themselves in relation to the spatial and social world around them, focusing on the interaction between the individual and a web of systems they influence and inhabit. Students explore personal, socio-cultural, physical, living, and imaginary systems as contexts for learning, seeking to understand the nature of the individual and how the identity of that individual shapes their world. Point of view and perspective taking are core tools in this domain. By responding to viewpoints, debating, and taking a stand, students become aware of systems of relationships: empathy, cooperation, reciprocation, ethics, tolerance, and citizenry in a global world.</p>
Codeworlds (Math/English Language Arts)	<p>Students practice decoding, authoring, manipulating, and unlocking meaning in coded worlds, to meet shared needs or for their own purposes. Work in this learning context requires students to practice with the concept of language and literacy across disciplines, from math to ELA to computer programming. Codeworlds draws on games as learning environments that produce meaning through the interpretation of symbolic codes ordering our world. As students reflect on how the underlying rules of a system shape expression and communication, they gain experience in comprehending the world as a meta-system made up of multiple systems, each containing a set of values, assumptions, and perspectives.</p>
Wellness	<p>At Q2L Wellness is a domain and school-wide practice where students appreciate and know what it means to</p>

<p>(Physical Education/Social Emotional Learning/Health)</p>	<p>be healthy. Wellness situates personal, social, emotional, and physical health within larger systems, including peer groups, family, community, and society. In 6th grade Wellness, for example, students will learn to see the body as a complex, dynamic system affected and changed by systems that are both internal, and external to it. Through practice in the Wellness domain students will develop strategies for keeping their bodies running at optimal physical, social, and emotional levels, while learning to make healthy choices. Wellness expertise is distributed across disciplines such as exercise science, human sexuality and personal health, nutrition, youth development, expressive arts, mindfulness, interpersonal and group dynamics, life coaching, conflict mediation, and movement. Q2L students cultivate ownership of wellness practices that have an impact on all interactions in their daily lives and the communities of which they are part.</p>
<p>Sports for the Mind (Media Arts/ Game Design)</p>	<p>The fluent use of new media across networks has become an essential prerequisite for a productive career, prosperous life, and civic engagement in the 21st century. Sports for the Mind is a primary space of practice attuned to new media literacies, which are multimodal and multicultural, operating as they do within specific contexts for specific purposes. Work in this domain introduces students to tools that are foundational to the curriculum, starting with game design platforms in the 6th grade, moving into programming tools in the 7th grade, onto work with virtual worlds in the 8th grade, toward immersion in data visualization and knowledge management tools in the 9th. The selection of toolsets is achieved in coordination with the rest of the curriculum.</p>

Parents: 21st Century Learning

Quest to Learn is “a school for digital kids.” But what does this mean? Where does digital media fit into the curriculum and into Q2L’s overall vision of learning? In three ways:

1. **Integration:** Our curriculum integrates digital media into the everyday aspects of learning, where appropriate and where work with digital tools and resources extends student learning in ways that are motivating, effective, and relevant. Digital tools might be software that lets students create videos, PowerPoint presentations, images or websites. Digital tools might also be digital games, models or physics simulations, search engines, interactive stories, etc.
2. **Purposefulness:** Our curriculum supports students in becoming thoughtful, resourceful, and responsible online citizens who know how and when to use digital media for the purposes of learning, communication, and exploration.
3. **21st Century Skills:** Our curriculum supports what are commonly known as 21st century skills: multi-modal learning (i.e. with media incorporating text, image, audio, and interactivity), working in teams, being able to search for, find, and evaluate the credibility of information using online search tools, being able to synthesize and make sense of information drawn from multiple sources, and knowing how to solve complex problems by mobilizing a range of available resources.

Technology Integration: Our Philosophy

Like screwdrivers or space shuttles, high tech hardware and software are most useful when used for clearly defined purposes. Their power can be unleashed only if we also pay sustained attention to curriculum, school organization, educational philosophies, instructional practices, family and community involvement, and the other components of successful schools.

Educational technology is used as tool to deepen a student’s understanding of a particular subject, concept or skill and is also used to foster communication within the school and beyond. Applications are chosen based on their ability to model or extend thinking or problem solving that is central to the classroom. At times technology is used to imitate what is being done in the classroom, thus reinforcing learning and often times it allows students to move further to enhance learning.

There are various ways the integration of technology takes shape in the classroom. We provide tools that allow classrooms to effectively collaborate and produce compelling lessons. Our model places the classroom teacher as the responsible party ensuring that the use of technology is compelling and in context. Teachers also act as a front line of support for the technology present in their classroom. The role of the technology group is to support this approach, scaffolding teachers thus allowing them to meaningfully integrate technology into their work with students.

New Kinds of Learning Environments

Besides our 21st century knowledge domains, Q2L students have the opportunity to work with several innovative learning environments, through support of the founding partner the Institute of Play. These environments are integrated into the overall Q2L curriculum and will be used by students throughout the year in Home Base and domain classes.

Being Me

Being Me is a closed social network platform that has been custom designed for the school that will be used by students throughout the day. The platform allows students to post work, create a blog, form discussion groups, tag resources for use in their classes, track their mood, find collaborators, and much more. Only members of the Q2L learning community have access to the site, so it is a safe online space that can be used by students to extend their own learning. Being Me's development was funded by the Robert Wood Johnson Foundation pioneer portfolio and designed by the Institute of Play.

SMALLab

Students will have a chance to work in a special learning space called SMALLab, run by the Institute of Play. SMALLab is a physical space that uses motion capture cameras and top down digital projection to create learning scenarios that students interact with around targeted content chosen by teachers. Students use wireless controllers to interact with digital objects projected on the floor. This form of interaction with content and concepts supports a form of embodied learning that helps kids learn in kinesthetic ways. SMALLab has been tested since its inception with kids and their teachers working with math, science, and ELA content. Support for SMALLab is provided through Intel Research.

Mission Lab: A Lab For Learning

Mission Lab, a working game design, assessment, program evaluation, and curriculum development space is physically situated within the school run by the Institute of Play. Members of the Mission Lab staff are on site each day to work with students and teachers, providing opportunities to work with game designers and other media specialists on professional development and curriculum projects.

Studio Mobo: Afterschool Program

Studio Mobo is an afterschool enrichment program designed to activate kids' curiosity about games, design, and mobile technology. With a focus on digital citizenship and community engagement Studio Mobo extends Q2L's focus on tinkering, problem-solving, creating, and inventing. Students pick from thematic "pods" that change each trimester and work with expert mentors to learn new things. The offerings focus not just on learning mobile technologies, but also on DESIGN and associated skills and literacies. These pods include work around 21st century literacies related to game design, digital storytelling (animation, video, comics, etc.), mobile fashion, branding, marketing, and entrepreneurship. Studio Mobo extends Q2L's game-based pedagogy into the afterschool space, allowing for direct immersion into communities of production and participation focused on empowering young people and modeling career and college futures. Studio Mobo is presented in partnership with the Pearson Foundation and the Institute of Play.

Q2L Glossary

Being Me: a school-based social network site where students can communicate, post work, collaborate, and reflect.

Being, Space and Place: a class connecting social studies with reading and writing fiction, non-fiction, poetry, and comics.

Boss Level: two-week “intensive” where students apply knowledge and skills to date to propose solutions to complex problems.

Codeworlds: a class where math meets ELA and language rules the day.

Home Base: 10 kids + one very interested adult = student advisories that meet twice a day.

Missions: 10-week units that give students a complex problem they must solve.

Mission Lab: Q2L’s game design and curriculum development studio.

Q2L: Quest to Learn

Quests: challenge-based lessons that make up Missions.

SEL: socio-emotional learning; an approach to teaching the whole child.

SMALLab: mixed reality environment focused on embodied learning.

Smartool: a “tool to think with” created by students as part of their class work.

Sports for the Mind: a class focused on digital media, game design, and mental acrobatics.

State Standards: Standards are pieces of information or skills that the state of New York has determined every student should know.

The Annex: an extended Mission prep period to hone literacy and math skills.

The Institute of Play: the founding partner.

The Way Things Work: a cool science and math class where students learn how to take all kinds of systems apart and put them back together again.

Wellness: a class designed to get students moving and thinking about ways to be healthy, from nutrition, to sports, to mental and emotional health.