



Curriculum

The sixth-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 learn about geography as a system of elements that affect how things grow and survive. They also learn to see whole number operations as elements of mathematical systems and that the rules of language (grammar and syntax) order elements in ways that allow us to communicate and express ideas. Students work 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 engage 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 school-wide challenge to solve, where they must draw on the knowledge and resources generated during the just-completed Missions. Boss levels are synthesizing spaces, providing opportunities for students who need a little extra work or for those seeking accelerated opportunities to extend their learning.

Reading and Writing across the Curriculum

Reading and writing in the 21st century require that students work with text and language in a variety of contexts, through the use of many tools. At Quest to Learn, reading and writing are integrated into every domain class, with special

attention to students' different learning styles. Students work with scientific, mathematical, literary, primary-source, book-based, and digital texts throughout the year.

Math as a Backbone

Quest to Learn's sixth-grade curriculum has been designed around math as a backbone. This means the overall curriculum is organized around the main content, skills, and knowledge that make up the state math standards for middle-school students. Because learning math requires following a certain sequence — students have to understand fractions before learning how to convert them to decimals and percentages, for example — this sequence creates a foundation for the rest of the curriculum.

Wellness

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

Integrated Domains: Classes at Quest to Learn

Students learn standards-based content within classes that are called 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 English Language Arts

(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

THE WAY THINGS WORK (MATH/SCIENCE)

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.

BEING, SPACE AND PLACE (SOCIAL STUDIES/ENGLISH LANGUAGE ARTS)

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.

CODEWORLDS (MATH/ENGLISH LANGUAGE ARTS)

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.

WELLNESS (PHYSICAL EDUCATION/SOCIAL EMOTIONAL LEARNING/HEALTH)

At Quest to Learn, Wellness is a domain and school-wide practice where students appreciate and know what it means to be healthy. Wellness situates personal, social, emotional, and physical health within larger systems, including peer groups, family, community, and society. In sixth grade Wellness, for example, students 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 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. Quest to Learn 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.

SPORTS FOR THE MIND (MEDIA ARTS/ GAME DESIGN)

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 the foundation of the curriculum, starting with game design platforms in the sixth grade, moving into programming tools in the seventh grade, onto work with virtual worlds in the eighth grade, toward immersion in data visualization and knowledge management tools in the ninth. The selection of toolsets is achieved in coordination with the rest of the curriculum.

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 Quest to Learn's overall vision of learning? In three ways:

- > Integration:** The Quest to Learn 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.
- > Purposefulness:** The 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.
- > 21st Century Skills:** The Quest to Learn 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; searching for, finding, and evaluating the credibility of information using online search tools; synthesizing and making 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 sustained attention is paid to curriculum, school organization, educational philosophies, instructional practices, family and community involvement, and the other components of successful schools.

Educational technology is used as a tool to deepen a student's understanding of a particular subject, concept or skill. It 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 enhancing learning.

There are various ways the integration of technology takes shape in the classroom. Tools allow classrooms to collaborate effectively and produce compelling lessons. Quest to Learn's model places the classroom teacher as the responsible party ensuring that the use of technology is 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 and allowing them to integrate technology meaningfully into their work with students.

New Kinds of Learning Environments

Besides 21st century knowledge domains, Quest to Learn 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 curriculum and are 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. It is 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 Quest to Learn 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's pioneer portfolio and designed by the Institute of Play.

SMALLAB

Students have a chance to work in a special learning space called SMALLab. 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 students 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 and is 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 Quest to Learn's focus on tinkering, problem solving, creating, and inventing. Students pick from thematic "pods" that change each trimester, and they 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 Quest to Learn'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.

