THE MASSACHUSETTS SCHOOL OF SCIENCE, CREATIVITY AND LEADERSHIP

Acera Program Overview

2024 - 2025

Where gifted kids ask big questions,
learn based upon ability, not age,
and become their best selves.

acera

Acera Program Overview

2024/25 School Year

The following overview guide includes:

Addenda To Be Added:
Upper School Electives
Upper School Math Program
School Year Calendar
Additional Videos to Understand More about our learning philosophy
Student Support Program Information
Blackbaud login page

If you wish to see any of these addenda and the links are not present, email office@aceraschool.org with your request.

Mission

Acera enables students to have a runway that fits their potential, developing the next generation of scientists, innovators, and leaders for our world.

To achieve this, we:

- Focus on inquiry, creativity, and complex thinking
- Individualize learning to create meaningful, authentic experiences which align with students' abilities, learning profiles, and interests
- Emphasize STEAM learning and habits of mind areas; integrate STEAM language and tools across learning programs.
- We connect learning to the world we are currently a part of and the world of the future.
- Focus on development of self within the community to fertilize student's understanding of themselves, their individual capacities, and their commitment and motivation to have a positive impact in their communities.
- Create educational partnerships with like-minded organizations and thought leaders.
- Continuously reflect on and improve our programs, curricula and school.
- Leverage evidence-based practices in education and integrate these across disciplines.
- Operate as a "lab school" to pilot test new curricula, evolving our program and approaches. Be a microcosm of what is possible for all schools, integrating and leveraging technology, thought leadership for new innovations, and cross-disciplinary learning to share a model beyond our walls.
- Safeguard the spirit and innate curiosity of each child, so that they can develop their own unique voice.
- Enable students to pursue their passions, curiosities and talents.
- Leverage student strengths and interests to help them develop in their areas of growth through self awareness and individualized learning approaches.

Core Capacities We Foster at Acera

We facilitate students to develop their skills (e.g. writing, reading, math computation and problem solving, science), their knowledge (via a learn/teach-for-understanding philosophy, not just coverage of content), and, most importantly, the core capacities that demonstrate achievement and leadership in the world. We believe that these capacities will define them as adults and as contributors to society and are critical for success.

Leadership: Empowered to see needs and step forward to make a difference. Rally others in relevant ways with original ideas (and/or against real world needs). Have a vision for change and bring that vision into reality, combining contributions of many to bring it to life.

Critical Thinking & Problem Solving: Inquire deeply, analyze, and relate different aspects to each other. Break things down and recombine them together to assess a situation and address a need.

Creativity: Free thought and inquiry resulting in original work or novel approaches to express an idea.Being a divergent thinker and solution creator.

Systems Thinking: See the whole perspective and the parts, across social, cultural, societal, scientific, and historic perspectives. Understand the interconnectedness of forces and actions.

Perspective Taking: Awareness that the place and experiences of the viewer fundamentally affects what they see / how they see. Develop the capacity to see through the eyes of others.

Collaboration: Work with others to create something and to achieve a result which supersedes the contributions of any one individual.

Emotional Intelligence: Self-awareness to know your gifts and challenges, self-regulation to control impulses and focus your potential, awareness of the impact of the self on others, and capacity to read the group and take on the role which is needed.

Ethical Decision Making: Make decisions and choices based on values and a sense of morality about what is right.

Core Values We Live By

We challenge our whole community to live and make decisions based upon and guide our interactions.

Community
Respect others. Support others to become the best version of themselves. Use talents to make a positive difference. Love children. See / leverage strength in diverse skills and ways of seeing the world. Understand where others are coming from and respect other points of view.

Openness
Have a humble heart and an open mind. Communicate with truth & compassion. Accept yourself and others. Communicate to share information, not just on a need-to-know basis. Have awareness about and tolerance of different styles.

Innovation
See challenges as opportunities. Uncover possibilities and pilot new approaches with courage. Encourage risk- taking. See struggle and failure as part of learning. Iterate.

Integrity
Be accountable: do what you say you will and do the right thing. Make decisions based upon your values. Honor yourself and your own personal potential by challenging yourself to do your best. Use your judgment and do what is right.

Leadership
Model our beliefs within our actions. Rethink authority. Be flexible about roles. Allow others to take ownership as a leader. Listen to others. Be open about and reflective in your practice. Find your inner tenacity; be flexible and resilient. It is not about imposing your ideas on other people.

Curiosity
Discover, innovate, and learn with a voracious mind. Maintain a sense of wonder in our world. Enable Freedom and joy in learning, with choices, control & sense of purpose in learning. Encourage others to think, engage, and come up with their own ideas and discoveries.

STEAM - Science, Technology, Engineering, Arts, Math

Science comes into every classroom and space at Acera, as students build batteries with dirt, make bridges leveraging a variety of strategies, and invent mobile oceanic structures using principles of biomimicry. Scientific and engineering topics interrelate with great questions of humanity: "How do civilizations form?" "How can we be positive stewards of the earth?" "How can we recognize challenges and lead positive change that respects the perspectives of others?" Central to our academic learning, STEAM plays a focus. That may look like the theme selected for a particular classroom, “Piracy, Oceans, and Trade” with units related to wave/sound/electrical waves, or essential questions such as, “What is the impact humans have upon the world around them?” Themes between years evolve and have included topics such as: ecosystems, climate change, design/redesign, biomimicry, flight and space, geology, Newton’s Laws Of Motion, and evolution. From year- to-year, deeper investigations into particular engineering topics occur, including structural, frugal, sustainable, mechanical, electrical, and optical engineering.

Computer Science and Technology Education: Computer science and technology are woven into our program across all years, in a way that evolves as new computer science languages and tools emerge, and in a way built around a students’ interests and motivation. Over the years, programming languages which have shown up in our school include: Scratch, Processing, Python, Javascript, Twine, General Purpose (GP) and others. Students often start off in learning about computer science components through hands-on robotics tools. Students most interested in this area progress through telling interactive stories in Twine and developing worlds in Scratch and begin to create ways to visualize data, make video games, and bring a wide array of projects alive. Some students get deeply invested and become facile with Arduino boards or with programming in virtual reality. Many students gain skills in audio recording, for sounds and to mix music, and in filmmaking and video editing for films or stop animation movies. Students are encouraged to integrate technology and a wide array of self-expression tactics into their learning experience.

The Tech Hub: The Tech Hub is a zone in the central Commons area of the school, and enables access to PodCast, PhotoShop, fixes and troubleshooting, and an array of constantly growing new tools. Concurrently, student leadership in the Tech Hub area, by Upper School and Upper Lower School students, enables students to gain skills and become known in the community as resources to help others.

Engineering: The maker space zone and woodshop area are places where engineering comes alive in the form of projects. Students learn to use tools to build basic projects to start and, as their skills increase, have the autonomy for more complicated and creative projects. The time in the woodshop can relate back to a classroom theme (building a cold frame and compost bins to go with the unit on “What Nourishes Us") or a student's

individual initiatives or small group projects (ex: making a wooden chest or bench, building a scooter or bookshelf, creating and installing new play or garden structures to go onto the playground). Maker space projects take myriad forms which leverage a wide toolset and equipment including microcomputing, 3D printing, laser cutting, soldering and projects.

Life Sciences Lab: All students have life sciences lab elective options over their years in the Upper School. This zone focuses on labs which link conceptual learning to real innovations and world needs. Topics have included: biochemistry, molecular biology, biotech, biology, chemistry and more, which enables students to learn science through doing and has a role for students to understand concepts by uncovering them through their experiences; iterative redesign of protocol and uncovering scientific principles enable deeper understanding as students see things come alive and make sense so they can construct their own understanding. The Life Sciences Lab is modeled as a space and place built around the way biotech scientists work, rather than a recipe book approach following a textbook. They make connections back to the real world and current day innovations. One sample partnership and pilot test program from a few years ago was the Amino BioLab. Acera was chosen as the site to pilot test this in the United States, enabling our Upper School Science Lab to include Microbiology, Synthetic Biology and Gene Editing. We have had a myriad of life sciences partners over the years, whose leading research helps infuse creation of new hands-on labs, which we can then codify, pilot test, and then include in our outreach work of AceraEI. Our Life Science Change Agent Teacher curricula and workshop series is a program which allows us to offer the benefit of many partnerships with public schools.

Instruction and Integration: Specialist teachers, who have deep training and work experience in the fields of engineering, biotechnology, computer science and beyond, enable learning and growth through collaborative, hands-on projects that weave throughout the curriculum. They use tools in technology and science to express ideas, tell stories, and create novel projects and electronic portfolios about the ongoing learning. There is always meaning in the work. Students use these tools to deepen learning and explore how things work and express their ideas; the tool is a means of expression.

Mathematics

At Acera, students learn math that is right for them. We have small math classes based on student readiness, interests and learning styles. Unlike other age-based programs, we put no limit on what a student can learn. Math classes delight and engage students while teaching them to think deeply, explore/discover, and build understanding of important math concepts.

Math classes are small and designed around the learning levels and styles of the students in the class.The first week of school, all students are assessed and based on this, along with admissions information from students in their first year with us, and the input of the previous teacher for our current students, we create ability-based math groupings to meet the level and learning needs of each child. In 2022-23, there were 16 groups for 143 students. All math groups meet at the same time across the whole school, which provides us great flexibility in how we place the students into mixed age, similar ability classes. We don't hold a child back because of their age, but instead find the appropriate peer group for them to learn with.

Because children learn when they are engaged, we base our math program on problem solving that promotes active participation in a way that works for the age and the style of the group; using puzzles, games, discussions, group problem solving, and more to create lessons that invite students to think deeply and be excited about math. Our program uses both the Common Core and MA State Standards as guideposts so our students are able to move into their next steps after Acera easily. Using guideposts are just that - general markers - but this is not limiting to our student's learning. The emphasis is on learning in-context and taking an investigative, hands-on approach. Teachers identify needs and goals and leverage a variety of curricula to define the best learning program for their students. They have the flexibility to follow student interests or to go off on a tangent and bring in other topics as the year develops.

We want all students to have a solid foundation in mathematics. In the early years, this means developing number sense and spatial reasoning, as well as building a logical and coherent understanding of math. At higher levels, number sense expands to working fluently with fractions and decimals, followed by algebraic expressions. We want our students to have flexibility in how they approach problems and to have a deep understanding of concepts, allowing them to be creative problem solvers. When our students are ahead of the guideline grade level guideposts, we continue to challenge them with high-level material. Teachers draw from a huge range of mathematical topics, from finding patterns in sequences to rigorously defining infinity, from building Platonic solids to finding math in biology.

**Please See Upper School Math Course Guide for more information on the specific pathways and courses offered in Upper School math, including Pre-Algebra, Algebra, Discrete Math, Applied Algebra & Statistics,Geometry, Number Theory, Pre-Calculus / Linear Algebra, and, selectively as needed, academic student support program/ ILP offerings in calculus or beyond.*

Whole School Overview

Acera has one continuous program that looks at the developmental needs of students which affects the schedules of students. All classroom groups are divided into mixed-age groups. Each year, the classroom configurations shift to optimize for students' learning profiles and needs and to optimize for student inclusion in our program. In 2023/24 our classrooms are combinations of K/1, 2/3, 3/4, 4/5, 6, 7/8, 8-12. Lower School consists of grades Kindergarten through grade 4/5 with Upper School consisting of grades 6 through 12. Our families, staff and students are overseen by the Lower or Upper School Directors accordingly.

Students' schedules show more engagement in Inquiry, Maker, and Passion (IMP) projects once they are part of Upper School.

Purpose: Develop a sense of identity, voice and confidence. Build students' perspective-taking and systems-thinking skills. Enable students to step into being the best version of themselves, as invested citizens who can make a positive impact within our community and world. Foster accountability and organizational abilities to coincide with the middle-years stage and age. Optimize the transitional time between being children and emerging adults, develop creative problem-solving, initiative, collaboration and innovation capacities. Emotional intelligence attributes for development within our Upper School Students include: team project skills, recognition of the impact they have on their community, increased demonstration of accountability, developing capacity to navigate ambiguity and tolerate frustration, the capacity to self-advocate, and emerging attributes of leadership.

Our Lower and Upper School Programs have aligned philosophies and many common components, like Core Classroom community and theme time with literature and writing development support, Ability Based Math Block, Creativity Stations, and across-the-school lunch and recess time mid day.

Classroom Theme Time: A mix of humanities-rich and project-based learning, this is a time when students discuss anchor texts and literature, engage in discussions, dialogue and debate, engage in different projects and experiences which help bring alive the theme. They receive coaching on writing skills, learn new cultural and historic concepts, develop self-awareness and perspective-taking through experiential exercises and grow in their systems and interdisciplinary thinking. At the start of the year, these times are also used to scaffold executive functioning skills, teach writing frameworks proactively, and form, as a classroom, around communications norms, technology use, culture, and relationship development.

Previous years' Lower School themes have focused on the "Human Narrative," "Climate Change and the Industrial Revolution," the "Design & Re-Design Process," "Energy, Native Americans & Environmental Science," "Earthquakes, Structural Engineering & Haiti," "Water, Australia & Marine Biology," and "Home." Upper School Themes have included "What Nourishes Us," "Power," "Freedom," and "the Movement of People." Some years, the entire school selects the same theme as a jumping off point and particular questions or focus areas come alive across multiple classrooms in a given year, optimizing the opportunities for relationship-building between students, as well as collaboration and resource-sharing between teachers.

*** Please seek out Annual Reports from over the years to read additional myriad examples of classroom themes and projects at Acera.*

Collaboration: Collaboration is the pulse of our community and each year at the beginning and end of the school year for a week each and professional development days in January and March, Core and Specialist teachers plan themes and essential questions to be explored with students. This collaboration defines an interdisciplinary map of essential questions, themes, and projects which deepens inquiry within themes. Specialists and Core teachers meet to further define how each specialty area will integrate with the themes and projects identified, and new ideas and projects emerge. For example, in the "Human Narrative and Storytelling" theme, the computer science teacher worked on growth of skills in Twine, an interactive science fiction computer tool. In an "Energy / Newton's Laws of Motion" theme, the construction/engineering specialist partnered with the Core classroom teacher to develop woodshop skills with each student while they build a basecart, that was used for experiential learning around Newton's laws.

As a whole school and as individual teachers, we link up with organizations and great thinkers, customizing experiences that enrich student experiences and expand teachers' knowledge base. Direct Exposures to scientific thinking, passion, and cutting-edge materials are a hallmark of this unique aspect of our school. Core teacher's frame and extend guests' lectures and activities, making it come alive within the context of larger themes and essential questions.

We continue to build on existing and create new curriculum collaboration partnerships with individual innovators and organizations. Examples from our past include:

- Eric Alm (MIT Professor in Microbial Evolution)
- Angela Belcher (MIT Professor of Materials Science and Bioengineering)
- Peter Blake, (BU Social Learning Lab)
- Mark Daly (MGH & HMS Professor in Genetics)

- Tami Lieberman (MIT Skin Microbiome Lab)
- Calum MacRae (MD / PhD Brigham & Women's in Cardiology & ZebraFish research)
- Thomas Vandervelde (Tufts Professor of Engineering)
- Olin College of Engineering
- One Brave Idea (Acera is their school partner)
- Tufts Center for Engineering Education Outreach
- Kevin Dunn (Tufts Professor in Literature)

Creativity Stations: Every Wednesday for most of the day, students have their choice of creativity stations, with classes offered in art, music, theater, engineering, game design, and maker space, to name a few. These stations are led by specialist teachers for whom these disciplines are their area of expertise. Through this choice and variety, students get exposure to a variety of artistic fields and engage in skill-building through projects. Students focus on selecting project based experiences that are both areas of strength and things they would like to explore to broaden their horizons.

Over the school year, we typically rotate through 6 sessions, with different stations available to different age groups throughout the year.

Periodically, students share their work at a culminating "Museum Walk" event. These dates are noted on the School Calendar; parents should plan to join us, in person, for these exciting gatherings! It is a time when some Core classroom teachers decide to open their rooms for a classroom expo or portfolio share, alongside the Museum Walk, making it a whole morning at Acera for families to experience community and see a vast array of student work.

Stations evolve year-to-year. Some sample creativity stations from years past:

- **Woodcraft:** This program includes wood-based building projects, beginning with a team learning activity. As students demonstrate that they have the motor control and judgment to engage at increasing levels of sophistication while staying safe, the additional complexity of power tools is made available. These opportunities help develop their drive for mechanical and practical innovation.
- **Fiber Arts**: Students will translate drawing and mixed media studies into textile art, as well as developing skills in hand sewing, machine sewing, felting, quilting, embroidery, sewable circuits and more!
- **The Science of Cooking:** Students will ask questions to ignite their curiosity and become a good chef. Why do we soak legumes, or do we? Do oil and water mix? Why or why not? We'll be bringing food science out of the lab and into our kitchen!
- **Generative AI - How, Why, Why Not?:** Have you heard of, maybe even tried out ChatGPT, DALL-E, or other software tools that produce information (text, images, sounds or video) just from simple prompts? Accelerating use of generative AI in many contexts is taking the world by storm, with all sorts of creative, social and ethical implications. After learning about the creation and

function of the current crop of tools, students will examine their effects on individuals and the community. The focus will be on investigations in education, news reporting, and the arts.

- **Physics:** Students will explore the physics principles that describe motion through lab wor, computer simulation, and classical problem solving. They will also gain insight into everyday scientific practice: setting up and running experiments, keeping a lab notebook, and presenting findings. How do we describe motion? What causes objects to move? What are some of the forces we see in everyday life? How are force and motion connected? These are some of the questions we will explore and more.
- **Movement Stories:** How has dance been used to preserve history and culture? What messages do we want to share with our community through creative movement? Students will explore movement as a method of creative expression, social awareness, and storytelling. We'll draw inspiration from American social dances like the Charleston, Hand Jive, and Do-Si-Do, then collaborate to create meaningful movement stories.
- **Songs That Make the Whole World Sing**: An introduction to the craft of songwriting. Working as individuals and in small groups, students learn to write, sing, perform, and record songs inspired by their experiences. These result in a time capsule collection of each student's development and interests, producing school hits like, "My Jello Me" and "Dessert's Delight."
- **Acera Greenhearts:** We will be preparing the garden for fall, planning and planting fall and winter veggies, designing, building, and painting new containers and planters and helping to construct our new playground garden!
- **Creative Digital Media:** Go deeper into image and video editing and creation in this course exploring professional-grade Adobe Creative Cloud software. Students will learn to create and edit their own images, audio, and video in Adobe Photoshop and Premiere, allowing them to transform and present their original ideas while implementing their skills in drawing, animation, and writing.
- **Ukulele**: Using contemporary songs selected by the students, children learn the skills of reading and performing, as well as making their own compositions. This is a performance-based course and students share their study with others through individual and group performances. Beginner and advanced classes available.
- **Creative Computing:** Challenge yourself with your choice of digital tools featuring just-right (for you) programming! Remix existing projects or start new ones. Work individually or collaboratively on animations, games, storytelling, art, 3-D models … let your imagination shine! Share your work with classmates, and occasionally show-tell in class.
- **Theater & Performing Arts:** Theater arts offers students a place to explore voice, emotion, group dynamics and social skills. Students engage in improvisation and imagination exercises to open their minds and capacity for expression. Younger students build the foundations of acting and storytelling. Older students have ample opportunity to practice improvisational acting, character development, and playwriting. They're given options to develop their own work or build from preexisting scripts and bring to life a brief play (or musical or other performance) for the end-of-session Museum Walk.
- **Ooey Gooey Science:** Create, make and design your own Slime, Puttys and Sands. Students will explore the physics behind non-newtonian fluids while getting a little messy!
- **Math Olympiad:** Based on student leadership, we are excited to offer a Math Problem Solving Station for those interested in participating in Math Olympiad, a year-long competition with 5 contests throughout the year. Stimulate enthusiasm and love for math, flexibility in solving problems, ingenuity, satisfaction and joy in meeting challenges!

Health & Wellness: Along with external support for more sophisticated health topics for our upper school students (Educa Health), social and emotional learning and self awareness, as well as explicit instruction in yoga and mindfulness is often brought into classrooms and woven together within learning programs. Topic areas include positive self-image and relationships, social emotional learning (SEL) exercises, understanding bias and prejudice, self-regulation strategies, mindfulness and yoga, healthy habits for digital and social media, etc. Our sexuality education programming is led by Educa Health and includes topics each upper school core teacher has decided are pertinent for that group, that year. Topics can include sex education, impact of substance use on brain development, and building healthy relationships.

Typical Daily Schedule for Lower School

Time	Focus
8:00-8:30 AM	Teacher prep
8:30-8:45	Student arrival
8:45-9:30	Morning meeting
9:30-10:30	Literacy & Writing: Younger Lower School students experience a mix of direct instruction in clustered reading groups, which can link to a theme, be a mini-unit, or include literary book club groups. Whole class and small group language arts lessons are integrated as determined by the teacher. Often, an additional teacher is present in the room to help with writing, executive function, focus, and follow-through.
10:30-11:00	Snack and recess/Teacher break and prep
11:00-12:00 PM	Math Block: Students break into ability-based small math groups with a teacher matched to their level and learning style.
12:00-1:00	Lunch and recess/Core Classroom teacher break and prep
1:00-3:00	Afternoon Activities, as determined by teacher, to complement other components of the week. Often there is a focus around hands-on and interdisciplinary learning mathematical projects that map to larger themes, questions, and learning being explored by the class. Specialized smaller group or individual projects can also be a focus orchestrated by the teacher to best meet each students' needs, learning style, and interests. Specialists may be incorporated with the class group (arts, engineering,computer science, science lab, theater, architecture, technology, mindfulness/yoga,health education, or special guests / curriculum collaborators as scheduled by teachers) Core Classroom teachers have between 2-5 Specialists/co-teachers whose talents and teaching skill get integrated into that classroom program. Depending Upon the students' profiles and needs, additional specialists can be present and co-teaching at other times or any time throughout the day to add extra support for mindfulness, executive function and writing, or general classroom support.
3:00-3:15	Dismissal (Students not picked up dismissed to After School)

Note: Creativity Stations on Wednesdays make that day's schedule akin to Upper School Wednesday, see below.

Typical Upper School Weekly Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
Welcome & Morning Meeting (8:30 - 9:00)				
IMP 9:00 - 10:45	Elective A 9:00 - 10:45	Core 9:00 - 10:45	IMP 9:00 - 10:45	Elective A 9:00 - 10:45
Math 10:45 - 12:00	Math 10:45 - 12:00	Creativity 10:45 - 12:00	Math 10:45 - 12:00	Math 10:45 - 12:00
Lunch 12:00 - 1:00				
Core 1:00 - 2:45	Elective B 1:00 - 2:45	Creativity 1:00 - 2:45	Core 1:00 - 2:45	Elective B 1:00 - 2:45
Stewardship & Dismissal (2:45 - 3:15)				

Facets of Upper School Program:

- Increased emphasis on accountability and follow-through for assignments as fits the middle-years' and high school age readiness.
- Increased focus on development of individual voice – in writing via one-on-one coaching, in arts and projects, and more opportunities for community-wide leadership.
- Access to hands-on science lab experiences in biology, chemistry, and biochemistry, with an approach inspired by how science is done in actual labs (a discovery-oriented approach with a role for creativity and problem-solving, not textbook based), through our elective program.
- Electives, Science Labs, IMP / Passion Projects are unique to upper school and are described below.

Electives:

Students choose electives for each trimester, and each course meets twice per week. Electives include offerings across humanities, sciences and arts topics, and many electives are interdisciplinary. Some offerings are offered yearly, and others evolve based upon current events and students' interests to assure a wide and deep set of offerings through a students' upper school experience, in a liberal arts type of approach. Please see elective addendum at the end of this document for concrete details of offerings from a recent school year (including history, literature, civil rights and societal movements, geography, government, art, music composition, computer science, engineering, physics, chemistry, biology, maker space, sewing and fiber arts, and woodshop). All students engage in a mix of sciences, hands-on and humanities-based

electives. Each social sciences and humanities elective syllabus includes assignments with a focus on primary source materials and texts, and include a writing component, with writing and/or project deliverables. Though our school is not focused on “knowledge acquisition,” afternoon social sciences and humanities electives keep in mind the kinds of historical and culturally relevant types of ideas and topics we want to make sure our students are exposed to over their MS experience.

Science Lab: Building on themes, questions, and the previous years’ science lab program. Each year, our Science Lab teacher creates new biology, chemistry, and biochemistry related hands-on lab experiences with a constructivist approach to learning for Bridge and Upper School classes.The Science Lab notebook and readings support learning and understanding. The intent is that the science learning experience mirrors the way scientists actually work in a lab, rather than following a textbook, recipe-based approach. New scientific learning topics and tools are piloted within each year, reflecting our commitment to partnerships beyond our walls. For example, our partnership with Amino further enabled microbiology in our lab with a BioLab platform; our pilot test of this equipment and use of CRISPR Technology for gene editing experiments enables our students to engage in leading edge scientific thinking while providing a pilot test for approaches which can be scaled and used beyond our walls. Students who are most interested in Science Lab types of learning can have up to an additional 4 hours of lab time each week through IMP Project Times, if lab science is part of their IMP Project.

Inquiry, Maker, Passion Projects (IMP): For two - four hours each week, Upper School students work with their Core teacher and the broader IMP Mentor Team to turn an interest into an IMP Project. Once paired with a mentor, students move through the IMP Project Process. Typically, each student does a literature review, pitches their project concept to an audience for approval, and then works on their project (either on their own, with a partner, or with a small team they recruit) during IMP Project times. IMP Project topics are initiated by students, and are envisioned around a topic, question, need or interest they’ve chosen. Mentors with deep expertise in engineering, art, philosophy, electronic arts, maker space, lab science, computer science, game design, mathematics, woodshop, technology, music, journalism, creative writing, and marketing. For some students, smaller and shorter timeframes will make sense for their first IMP Project as they learn this approach. As students’ interests, maturity, and organizational skills deepen, longer-term projects become more appropriate. IMP Project Mentors support authentic student engagement through their interests, their acquisition of project management and communication skills, work to develop their advocacy and communication skills to engage others in their project, and prepare for the twice-yearly “IMPosium" Open House Events to share their projects with parents and others.

More Components of Acera's Program - For All Students:

Social Emotional Development

All Acera Students, concurrent with the academic offerings and schedule above, continuously engage in social, emotional and leadership learning and development.

The entire Acera experience is a platform for the development of students' social and emotional skills. Drawing from the work of Daniel Goldman, and others in the field of emotional intelligence, Social Emotional Learning (SEL) programming is a process for learning life skills, including self-awareness and self-management, understanding of bias and the impact on one's actions, social and interpersonal skills, self-management of frustration tolerance, decision-making, and communication. These skills are paramount to learning how to deal with oneself and others, sustaining relationships, and working in an effective manner together. Core teachers and emotional intelligence recess coaches – who have backgrounds as counselors, mindfulness/yoga, arts, coaching, and beyond – support student development at all times.

Emotional competencies for focus include (but are not limited to):

- **Awareness of the Self and Others:** Understanding and identifying feelings; knowing when one's feelings shift; understanding the difference between thinking, feeling, and acting; and understanding that one's actions have consequences in terms of others' feelings.
- **Self-Knowledge:** Understanding and owning one's strengths and needs. Recognizing the impact one has on others, and taking responsibility for that impact. Development of one's own voice and clarity of values.
- **Self-Regulation Management:** Handling and managing difficult feelings; controlling impulses;and handling anger constructively.
- **Self-Motivation and Frustration Tolerance:** Ability to persevere in the face of difficulty, setbacks, and ambiguity. Being able to set goals and work toward them with optimism and hope, even in the face of setbacks.
- **Empathy and Theory of Mind:** Ability to put yourself "in someone else's shoes," both cognitively and effectively; being able to take someone's perspective; being able to show that you care. Understanding that different ways of seeing the same situation can be informed by differences in culture, religion, and diverse backgrounds. Acceptance of points of view different from your own.
- **Management of Relationships:** Making friends, handling friendships, resolving conflicts, cooperating, collaborative learning and other social skills.
- **Organization / Executive Functioning Skills:** Developing the capacity to organize one's materials, writing, deadlines and assignments. Developing personal accountability

in a way that mirrors one's age and growth into an accountable person who's ready – by the end of Lower School – for Upper School expectations.

- **Persistence**: Continuing to try even when initial attempts don't work out. Sticking with something even if you will have to learn a lot and engage others to overcome adversity and achieve success.
- **Growth Mindset:** Believing that you can become better at things and grow your abilities through hard work and learning. A belief that you can improve yourself and skills and capacities over time.

To accomplish learning in these areas, Acera students engage in a series of stories, games, and cooperative activities while reflecting on the group process intermittently and as-needed in morning meetings, during group projects, in transition and recess times, and proactively in intentional lessons integrated into the classroom experience.

Assessment, Individualized Learning Plan, Conferences and Narrative Progress Reports

Assessment:

Assessment	Commentary
Start of year assessments	• Developmentally appropriate as determined by Core teachers: • Running Records Reading assessment (Fountas & Pinnell) in decoding and understanding up through Grade 8 level of reader. • Initial writing sample • Math Assessment / Placement with support from math specialists depending upon students skills / capacity (written and/or verbal)/ag • Others as determined by the teacher (e.g. spelling, etc.)
NWEA MAP Math and Reading Standardized, Adaptive Assessment	NWEA MAP assessment tool is an adaptive, computer based, on-line assessment that is administered at least once yearly. The focus is on skills in language arts and math. It is a nationally normed assessment against the Common Core. A report is given out to parents. (This assessment emphasizes basic skills - not development of capacities we value the most – critical thinking and problem solving, creativity, collaboration skills, systems thinking and perspective taking, emotional intelligence, etc). Typically, a reading NWEA Assessment happens in the Fall, and math happens in Spring.
Digital and/or Physical Portfolios	Students regularly reflect on their work, particularly through the lens of Acera Core Capacities. Through regular capture of student work and a corresponding reflection, each year, students compile a digital and/or physical portfolio that focuses on showing process, progress, and student reflection about their work. Parents are invited to look at portfolios at any point. Twice yearly, students share their portfolios with their families through a structured portfolio share meeting organized by Core classroom teachers. Ideally, students choose and include pieces in their portfolios from math, creativity stations, passion projects, Core classroom themes, and other work which shows their development academically, creatively, and socially.
Ongoing formative and summative assessment **Narrative Progress Reports & Culminating Events**	Throughout the year, students and teachers discuss their progress through conversations, feedback, and performances of understanding. Our teachers have an exceptionally strong understanding of where students' strengths and growth areas are, based on daily observations and analysis of work. Formative assessments are done as individuals and groups of teachers reflect on student progress. Through our project-based model, students have summative assessment moments (sometimes formatted as culminating events - open houses, performances, etc.) throughout the year to demonstrate their growth. Twice yearly, teachers reflect on and write up students' growth within their ILP goals, Core capacities, social and emotional growth and wellbeing, and key academic areas, producing narrative progress reports which are shared with parents ahead of twice yearly parent conferences, in December and May.
Screenings	Teachers can often be the first to identify potential areas to further explore and faculty members may encourage parents to follow up with their pediatrician or a specialist to seek additional screenings. Additionally, we do offer individual preliminary screenings for dyslexia if the teacher or family raises a concern.
Team Meetings	Any parent or teacher or staff member can request a team meeting about a student to step back and talk about needs being observed, and together galvanize a plan to more formally evaluate and support students needs in academic, emotional, and social realms. These meetings can reveal new needs, new awareness of history, and actively galvanize enhanced parent/school partnership and communication.

Conferences, Reporting, and Individual Goal Creation

Welcome Back to School Night	An opportunity for parents to meet their child's Core teacher and hear about the school. It's expected that all parents attend this event and is listed on the School Calendar.
Listening Conferences	An initial parent meeting to hear parents' goals and concerns and answer any parent questions. The focus is on listening and building relationships between parents and teachers, hearing parents' hopes and goals for the year, and forming ideas around unique focus areas for that child's development and growth for the year. These conferences also cover the Individualized Learning Plan (ILP) the teacher creates for/with the student.
Individualized Learning Plan (ILP)	To be published after listening conferences, the Individualized Learning Plan serves as an outline of the unique goals for each student. It then links into and helps inform the Progress Reports and understanding of student's individual progress. The ILP does not include all components of how the program is customized to each students' abilities and needs; start of year and ongoing assessment enables teachers to constantly differentiate and individualize for all students so that every student will be able to read, write, and engage in mathematics at their level, promoting growth in these areas every year in a way which uniquely fit their capacity, needs, and potential.
Narrative Progress Report	Published in December and May, the Narrative Progress Report is descriptive and not built around grades or common objective standards of performance. It includes paragraphs about the focus of the past term to both serve as a document of what students have covered and to comment on each individual student's progress, strengths, and growth areas. The Intent is a substantive and authentic report for parents about their child's strengths, focus areas for development, and next steps for continued growth.
Parent Conferences: December & March	With the narrative progress report shared in advance of the conference day, it is encouraged that parents plan ahead to be available to meet during the day on the conference days as published on the school calendar. Ideally, Core teachers will offer up appointment times at least a month in advance of the conference date. At the conference, parents have the opportunity to ask questions about their student's narrative progress reports, and to discuss areas of strength, growth, concerns and hopes along with next steps for their child.

Major School Events

Annual & Biannual Acera Events

July	Whole Community Parent Wine & Cheese to Welcome New Parents
September	Welcome Back to School Night Listening Conferences (Parents + Core Teacher/s) All Family Potluck & Acera Parent Partnership Kick-off
October	Innovator Symposium Oct-Jan 1: All School Annual Fund Campaign
November	Open House for Prospective Students & Math Festival Teacher Panel Parent Education Event Alumni Panel Museum Walk (also in Spring)
December	Parent Conferences All School Ice Skating Trip
January	IMPposium Sessions
February	Parent Education Event Reed Hollett Enrichment Scholarship Trivia Night Fundraiser
March	Parent Conferences Museum Walk
April	Poetry Day
May	Spring Fundraising Event (Love to Learn)
June	Museum Walk & Field Day IMPposium Sessions Graduation (all invited! 2pm last day of school) + Alumni Event

After-School Enrichment Offerings

The Goals of our After School Program (offered on school days until 6pm) are to:

- Offer incredible enrichment programs which are not regularly found elsewhere. Our Enrichment Programs are also open to students who do not attend Acera's school day program.
- Provide enrichment (and after school coverage as-needed) for current Acera Students
- Attract non-Acera students, enriching our community with new friends
- Please check our website listing to know what programs are offered, including programs in maker space, woodshop, sports, arts, and more.

Upper School After-School Model UN

The Acera Model United Nations Program engages students in perspectives of other cultures and important world issues. Immersing themselves in research on a foreign country, its policies, and culture(s), the students will also cover a variety of world issues and gain an understanding of the different perspectives on these issues. As they do this, they will develop research and writing skills, public speaking skills, debate skills, negotiation skills, and practical creative problem-solving. Students who are unable to participate in any of the conferences will be fully included in the teaching and learning process and will get to try out their skills at our regular mock debate sessions. Through this program, students gain many skills important in the 21st century and begin the process of becoming true global citizens in our ever more interconnected world.

Student Support Program

Student Support Program (SSP) Approach and Types

Brief Overview of the Student Support Program (SSP)

Acera has different support programs for unique profiles of students to address areas of need beyond their giftedness. Based on students' needs and classroom configuration, support will be put into place for each child, woven into their experience throughout the school day, across the whole staff. We integrate individual SSP frameworks into classroom norms, math, specialists' offerings, and in snack/lunch/recess, with confidential internal documentation and staff professional development.

- In the admissions process, inclusion of an SSP framework may be part of the enrollment offer; this increases the cost of the year's tuition. At the end of each school year, a decision will be made about the next year's SSP framework; the intent is that over time, students develop new skills and support can be reduced or eliminated.
- In addition to regular parent/teacher conferences, the SSP includes school team meetings to customize and evolve the approach for each child to review needs, note strategies and progress within the SSP framework, and collaborate with external resources such as therapists, neuropsychologists, school districts for students with an IEP, etc. SSP frameworks are set up on

an annualized basis to enable adequate time for team meetings, custom framework creation and maintenance, staffing arrangements, inclusion of external experts, etc.

- SSP frameworks added during the school year will be prorated based upon days of school remaining. After the attached SSP contract is agreed upon, planning work begins and services/supports will start as soon as a framework creation/staffing is ready and payment is coordinated.

When is a Student Support Program Framework Needed?

I thought that Acera differentiated across every domain for all students. Which needs/supports require the SSP?

Acera is a school for gifted students. We excel in accommodating a wide array of levels and learning styles of gifted students. However, when students' needs veer into special needs categories that are distinct from the "gifted" facet of their profile, they will likely need support which is beyond what is affordable for us to implement well in our base program. Most independent schools do not knowingly accept students with profiles which include challenges related to distractibility, hyperactivity, impulsivity, executive functioning, dyslexia, or social cues, and may instead encourage outplacement of these students; they are simply not set up to manage a wide array of neurodivergent students. The goal of these support frameworks is to allow each student to access the curriculum and set them up for success in each of their learning opportunities, regardless of their profile.

The student supports that we are able to customize and implement through the Student Support Program enable us to admit and customize an approach for different learning profiles, as well as staff appropriately, offer staffing professional development, and ultimately maintain an excellent educational growth experience for every student.

In general, an SSP may be needed when the specific needs of a student necessitate:

- Additional accommodations and specialized instruction by the teacher or support staff, and/or
- Additional time (whether in direct support or in collaboration meeting time, with support staff within Acera or outside (therapist, SLP, etc)) in order to help the student participate fully in their school experience.

Please see the table below for specific examples.

Supports and Considerations integrated into our program without the need for an additional SSP framework
● Above grade level academic capabilities (reading, writing, science, math, humanities) ● Movement breaks, alternative seating arrangements ● Clearly framed schedules and expectations ● Visual reminders and supports up on walls ● Expectation setting to support transitions ● Sensory integration awareness and support for touch, sound, smells ● Reminders, skill development, and sometimes redirection to build students' capacity for perspective taking ● Time for "breaks" with occasional counseling support as a result of a tough social or familial event (death of a grandparent, friendship group transitions, etc) ● Periodic coaching with teacher and/or counselor to resolve conflict and work through a difficult situation (ad hoc meeting and follow up) ● Graphic organizers, chunking assignments, scaffolding writing skill development ● Accommodations as indicated on a student's 504 (additional time for testing, use of speech-to-text software, etc)

Supports and Considerations which require additional customizations and/or strategies covered within the SSP framework

- Regular one-on-one check-ins to
    - Preview transitions or schedule changes
    - Remind student of helpful strategies and tools
    - Initiate and manage schoolwork in- and out- of the classroom
    - Facilitate integration of social skills
    - Preventative planning for application of regulation strategies
    - Other supports as identified per student
- Specialized social skills groups that are explicitly customized to meet the needs of students and their profiles, to
    - Continuously build self-regulation and/or social skills development
    - Help students gain self awareness and further develop perspective taking
    - Support new skill acquisition to respond productively in social interactions/discussions
    - Scaffold for growing abilities in a way customized to the student's profile
- Regular counselor support discussions and counselor office breaks to support regulation, whether these are needed weekly or multiple times a week
- Conflict resolution/coaching/debrief sessions needed to work through impulse-driven events or social conflicts of any kind, when a student is involved in these situations on a regular basis
- When executive functioning deficits are impacting students' growth in substantial ways, in which classroom accommodations alone are not enough and the student requires a custom plan/coaching on an ongoing basis
- When a student has a specific learning disability and/or dyslexic profile which necessitates additional support and/or accommodations during whole class literacy times.

SSP Framework Components (not an exhaustive list)

Need	Sample Interventions may include (but are not limited to)
Frequent direct and indirect behavioral support	-Custom frameworks built to address conversation impulsivity patterns/needs, building new awareness and skills regarding habits, interactions, and the impact of behavior on others; may include tracking before/after group discussions and/or weekly goal setting. -Additional gross motor movement breaks, seating options, and norms. -Development of student's self-awareness of needs and tactics to enable them to evolve into self-management -Expert special education consultation may be included into framework creation/implementation.
Support with executive functioning strategies	-Development of strategies to improve working memory, as well as improve planning and prioritizing of assignments and goals. -Task initiation supported as necessary by individual student needs. -Organization strategies explicitly taught to promote independent completion of, and pride in, projects and assignments. -Self-monitoring skills taught to encourage students to independently track and adjust their engagement, as well as to advocate for change when needed.
Regular intervention with social coaching and emotional support	-Friendship Skills Group or focus woven into discussion-based classroom activities, with custom coaching and re-direction and pre/post interaction planning and debrief with the student. -Strategies needed by one student may be integrated into the whole classroom experience/norms to assure inclusive, supportive culture. -Inclusion of additional emotional intelligence supports, feedback tools, and goal setting around emotional regulation.

	-Encouragement of flexible thinking and development of growth mindset. -Counseling sessions/interventions responsively as well as proactively around issues that emerge in the classroom, on the playground, etc.
Teaching centered on EF and/or literacy in small group	-Occurs during school, typically during whole-class literacy time, by the literacy specialist embedded in the classroom to add lessons and additional exercises in context with the classroom projects and assignments -Literacy specialist partners with core teachers to identify which students are candidates for the group, as well as plan for, track, and share progress on each student in the group. -Teaches strategies and gives scaffolding for assignments as needed.
Regular collaboration with outside specialists and/or support providers	-Occurs as meetings with/without the student, as well as with/without the parents (with express written consent) -Sharing of observations, strategies employed, areas of growth and continued areas of support

*For all of these supports, the intent is to weave them into the student's school experience seamlessly as much as possible, so that they may not even notice the extra pull asides and custom help.