The Massachusetts School of
Science, Creativity and Leadership

Acera REPS: Remote Extension Pop-Up School

What brings you here today?

What are you most worried about re: your child's needs and education avoid COVID?

What are your top priorities and goals, during a timeframe of remote learning?

***Please CHAT me your email address, if you want to be added to our contact list of interested families!*

acera
The Massachusetts School of Science, Creativity and Leadership

NEEDS: Parent Concerns Regarding 20-21 School Year

What are you most worried about re: your child's needs and education avoid COVID?

What are your top priorities and goals, during a timeframe of remote learning?

Acera ran 7 Parent Info Zoom Sessions between April 17-25, 2020. Parent comments included . . . .

Need to connect with other kids. Choices being sent by public schools are not a fit for my child's abilities or interests. Lack of structure at home. Working parents. "It is Lord of the Flies over here, and I am not an educator." Worry about backslide in writing. Concern about mental health. A lack of "interest" in and engagement in assignments and options sent for remote school. "My kids have become nocturnal and just seem. . . General malaise comes to mind." One-way content videos are not a good way to learn. Worry about what will happen next year, if school needs to move to remote learning again.

What are other needs which may make a family interested in remote schooling?

Injury / illness and must stay home. High ability student whose needs are not met. Anxiety. Have experienced bullying and need a fresh, safe re-start. School Refusal. Unhappy or unengaged in school. Learning does not seem relevant, meaningful, interesting. Family is moving. Natural disaster. School closing. Complements homeschooling plans. Athletes in training. Families who move often.

Acera: A New Vision for Education

We believe that schools should **catalyze students' passions, free their potential, and inspire a sense of purpose**.

We believe it is the responsibility of schools and their communities to safeguard each student's spirit and wellbeing, and prioritize students' growth in capacities (systems thinking, problem solving, collaboration, creativity, emotional intelligence, leadership) over "knowledge acquisition."

Unlocking our next generation of innovators, scientists, and leaders through collaborations and partnerships, **AceraEI is bringing this approach to other schools and communities.**

acera
The Massachusetts School of
Science, Creativity and Leadership

Why Acera? What makes Acera unique?

We tap into -- and foster -- a child's innate curiosity, motivation to learn, and sense of purpose by:

Providing students with choice and voice, and building individualized, inquiry-based learning plans based on their unique interests and abilities.

Offering early and robust exposure to STEM topics, and connecting them to real world innovations.

Empowering teachers to be facilitators of discovery in classroom, using new tools and technologies and evolving curricula in real time.

The broader mission has always been to transform public education.
Acera was created as a lab school to show—and test—what's possible in education.

acera
The Massachusetts School of Science, Creativity and Leadership

Broad National Impact

PUBLIC SCHOOL IMPACT

1 **3 Year Whole School Engagement**
@ Urban K-8 School

2 **Re-Invent Life Sciences Education**
HS Biology Linked to Real World Innovations

3 **Redefine the Purpose of School**
School Success Dashboard + OBI

CURRICULA TOOLS

PARTNERSHIPS

CHANGE AGENT WORKSHOPS

Acera Innovation Hub Lab School

acera EI

Core School vs. Pop Up Programs

Core School

- Started in 2010
- Roughly 130 students per year, K-9th grades
- Gifted population (application process)
- Students enroll all year
- Core Teacher(s) + Specialists
- Ability-Based Math (daily), Electives (Middle School), Creativity Morning (Whole School)
- Counseling, Health & Wellness
- Innovation Lab + Life Sciences
- In-depth customization + Independent Passion Projects
- Participation in “whole school” traditions
- Likely **hybrid model** for 2020/2021

- *Mission*
- *Philosophy & Pedagogy*
- *Professional Community*

Pop Up School

- Started in 2020 (April)
- 19 students in pilot, expanding to 4th-10th grades
- General population (no application requirements; directly enroll)
- Enroll part (minimum 4 weeks) or all year - flexible entry/exit
- Experienced Core Teacher (all coached/well-known by Acera) + Mentors or Guest Speakers (when appropriate)
- can be supplemental OR full school experience
- *Participate in NEW “Pop Up School” traditions!*
- **Fully remote** for 2020/2021

acera
The Massachusetts School of Science, Creativity and Leadership

CONTEXT: Where is Pop Up School Program Concept Coming From?

An Arlington, MA parent (whose child attended Acera School for grades 6-8) reached out to Acera on April 15, 2020: ***Could Acera offer a remote schooling program for the rest of this school year?***

Acera "Pop Up" extension remote learning school was envisioned, launched 4/27/20 -- inspired by:

1. Our philosophies about effective education, which are based on evidence
2. Our current in-person school program
3. Successes & iterative design in our school day program; Acera closed in-person school at 10pm on March 11 and opened as a "remote school" at 8:30am on March 12.
4. Success in porting our electives, enrichment and camp experiences to remote learning

Then, at a May Info session, another parent asked about Pop Up School for Fall 2020. The coronavirus pandemic is not going away, and people may want a back up plan.

An online schooling option could serve many needs, across a broad geography.

POP UP EXTENSION SCHOOL PROGRAM MISSION

ENABLE STUDENTS TO CONNECT, ENGAGE, AND LEARN VIA REMOTE SCHOOLING

Safeguard the spirit and innate curiosity of each child

Focus on inquiry, creativity, and complex thinking

Emphasize STEM learning areas, developing native capacity

Enable students to pursue their passions and talents. Provide a runway for learning so that students can fulfill their potential.

Leverage Acera's lab school approach and define a novel way to innovate a highly effective pop-up extension school amid the COVID crisis.

Model Pop-Up Remote Schooling as a possible option for Public Education

DEVELOP THE NEXT GENERATION OF SCIENTISTS, INNOVATORS AND LEADERS

acera
The Massachusetts School of Science, Creativity and Leadership

What defines our approach to teaching and learning?

STUDENT FOCUSED: TAP INTRINSIC MOTIVATION & PURPOSE

Traditional Model = Age Based Standards

- Learning = Limited to coverage of state specified content and age-based standards.
- Focus on Foundational Knowledge.
- Teach to the Middle. Cover content.
- Teacher as lecturer and primary source of information.
- Convergent Thinking. Memorization of Facts. Predefined Methods & Approaches.
- Divide learning by subjects in ways that make education more conveninent to deploy and easier to "prove" coverage of content

Acera's Model = Individualized Discovery

- Learning = Responsive to student interests, with inquiry and projects, including teachers' periodic reference to age norms and standards as a floor, not the horizon
- Focus on Complex Thinking.
- Individualize. Differentiate learning. Cultivate curiosity.
- Teacher as facilitator of discovery, with access to world class scientists and mentors and laptops as windows into the world
- Divergent, Creative Problem Solving Links to Real World Challenges. Meaningful Work.
- Engage students in multi-disciplinary learning in authentic ways that reflect how topics and work happens in the real world

acera
The Massachusetts School of Science, Creativity and Leadership

PHILOSOPHY: FOCUS ON COMPLEX THINKING

Challenge:

Typically, most classes focus "teaching" and testing on "knowledge/ remembering." It is simpler to "prove" content was "learned." However, without processing & application to a context that is meaningful to the student, the knowledge is not retained.

Acera's Approach:

Focus 80% of class time on complex thinking and application of knowledge to the real world and purpose-filled needs and projects

Role of teacher = facilitate discovery. Coach. Remove Obstacles. Ask Questions. Share resources. Find experts.

Engage students. Discussions, activities, authentic dialogue, laughter, hands-on projects, not a script.

Teachers are creative learning "entrepreneurs"- empowered to honor the learning interests and needs, defining learning pathways which fit the group *and* each individual student in a responsive, adaptive way.

acera
The Massachusetts School of Science, Creativity and Leadership

21ST CENTURY TOOLKIT

ACERA FOCUSES ON CAPACITIES, NOT JUST SKILLS & KNOWLEDGE

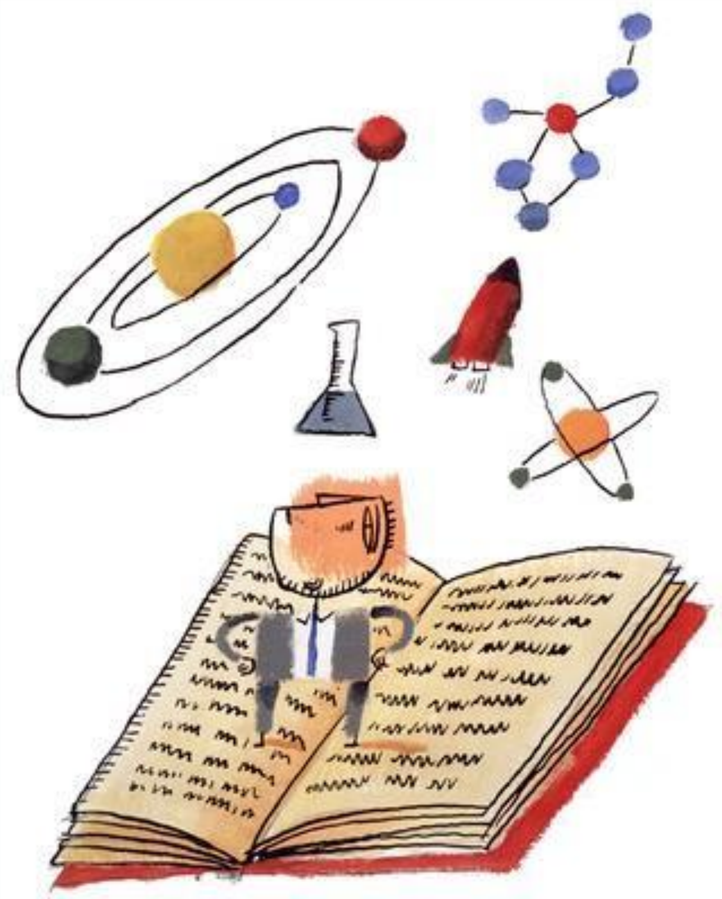
acera
The Massachusetts School of Science, Creativity and Leadership

What - and how - will students learn?

CORE CLASSROOM DISCUSSIONS & PROJECTS

Relating ideas to real-world situations and needs, **interdisciplinary**, **thematic & creative**
discussions, assignments and projects unfold.
Students inquire, analyze, discover, create, make.
Learning is personalized and applied to a
broader world context.
Adapting discussions and projects to students' interests makes it fun, (even joyous) and meaningful.
Authentic, real, **projects** can be hatched,
Truly student centered and inspired.

Teachers' construct a classroom learning trajectory around
Essential Questions . . Themes. . . Ideas. . . Cultures & Societies
which become seed kernels, inspirations
science, culture studies, **philosophy**, **language arts, STEM and rich creative learning**
Essential academic skills and content are woven into experiences which motivate authentic engagement to learn, to be accountable, to grow skills and knowledge because the learning matters.



PROJECT-BASED, THEMATIC SESSIONS

Each theme is a self contained unit culminating in a final project. These 4- to 7-week units optimize students' flexibility to join/depart as their circumstance evolves. Central to each theme are **Essential Questions that guide the learning process**.

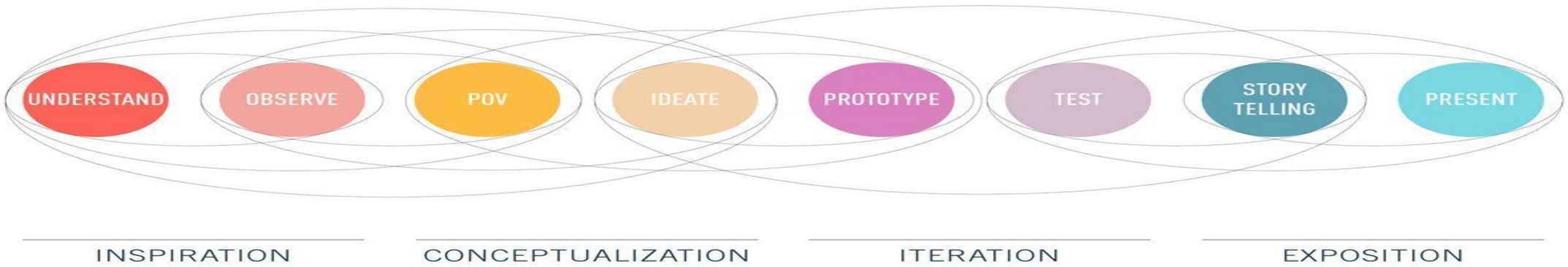
Teachers dramatically flex and adapt topics, projects, focus to fit with students' interests and needs. Students can enroll & add on (as space available); this CAN function as full school year remote schooling program (Acera will provide Report Card)

Theme: Culture / History / Social Sciences
Origins: Genesis of Society & Nations
Growth: Eras of Dramatic Growth
Invention: Past / Future Needs for Communities
Metamorphosis: Social movements & Migrations
Synergy: Cultural Structures & National Unifications
Power: Catalysts for good & evil. War & Peace.
Voice: Ideas that Changed the World & Art Movements
Impact: Taking a Stand for Cause. What makes a leader.
Humanity: Role of Religion, Believing, Identity.
Evolution: Traits/Trends of Historical Inflection Points.

(+ Related / integrated Science Topics)
Big Bang. Genetics. Engineering Underpinnings.
Environmental Science.
Engineering. Newton's Laws. Fission/Fusion.
Biology. Environment. Ecosystems.
Electricity. Magnetism. Energy.
Physics. Game Design. Energy.
Materials Science. Bioengineering.
Engineering Solutions for Needs.
Neuroscience. Biology. Psychology.
Biology. Ecology. Darwin.

Example Theme: Time Perception

THE DESIGN THINKING PROCESS



Week 1	Week 2	Week 3	Week 4
• Build Community • Learn Interests • Explore thematic essential question • Tap creativity • Build metacognitive skills • Individual meetings - Goal setting	• Explore EQs through reading, writing, podcasts, etc. • Investigate points of view • Discussions, short writing assignment & concept maps • Skill building (interview, construction, art, etc.) • Introduce project (Friday)	• Co-create rubric and develop project timeline • Sketch, plan, ideate; build prototypes, reflect, iterate • 1:1 coaching • Teach peer feedback; practice	• Peer feedback groups • Refine prototype & finalize project/product • Self-assess & reflect • Present to community

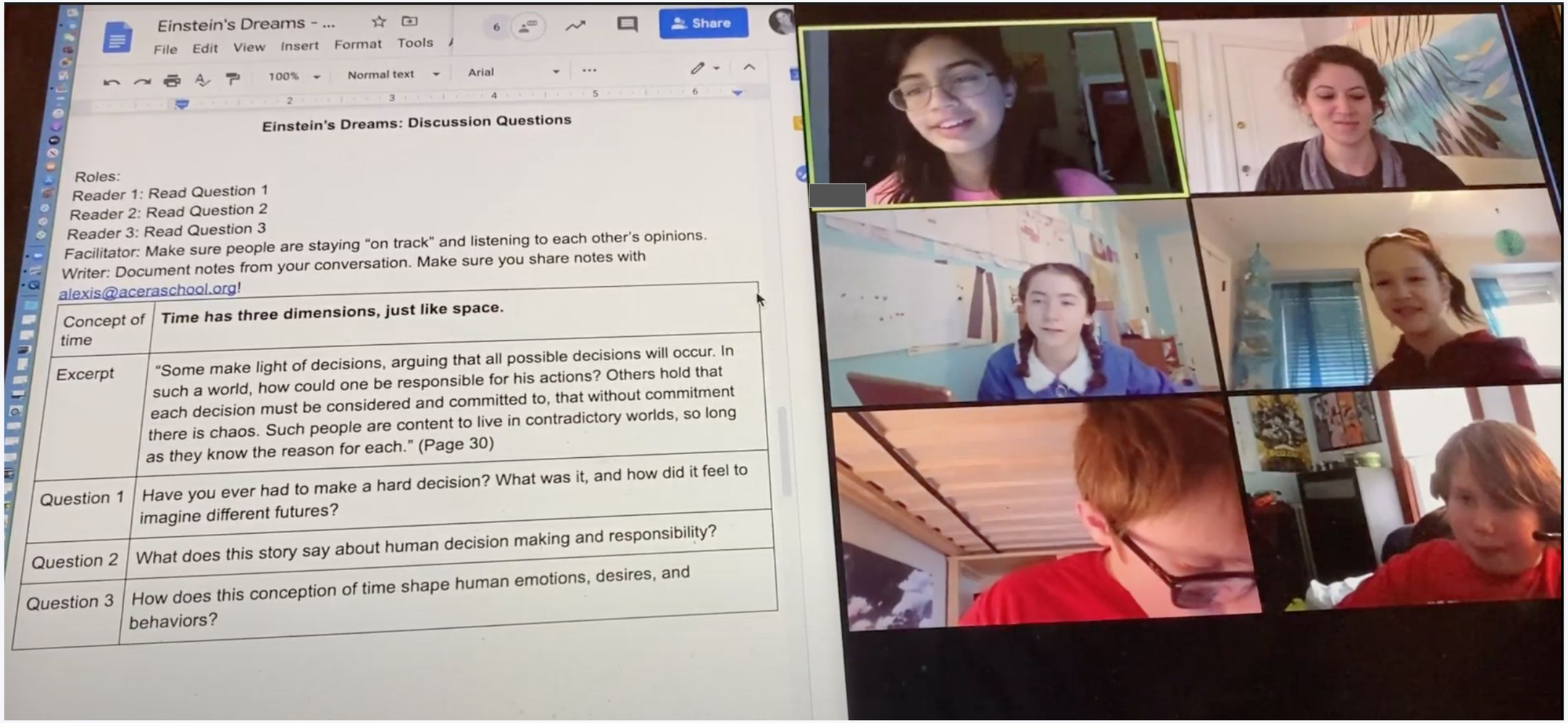
EQ: What shapes human thoughts, emotions, and decisions?

What is the influence of time perception?

What will students know? *Einstein influenced by development of railroads. Development in film/photography in same era.*
What will students understand? *Understand how time impacted and impacts understanding of time, speed, perception, free will. Comparison of early 20th century and now.*
What will students do? *Read/listen to* ***Einstein's Dreams****. Debate pros/cons of widespread use of photography. Conduct "****Three Generational Study on Time Perception****" → create podcast, essay, slideshow, etc.*

acera
The Massachusetts School of Science, Creativity and Leadership

Small Groups (Discussion Questions from “Einstein’s Dreams”)



Einstein's Dreams - ...

File Edit View Insert Format Tools

Share

100% Normal text Arial

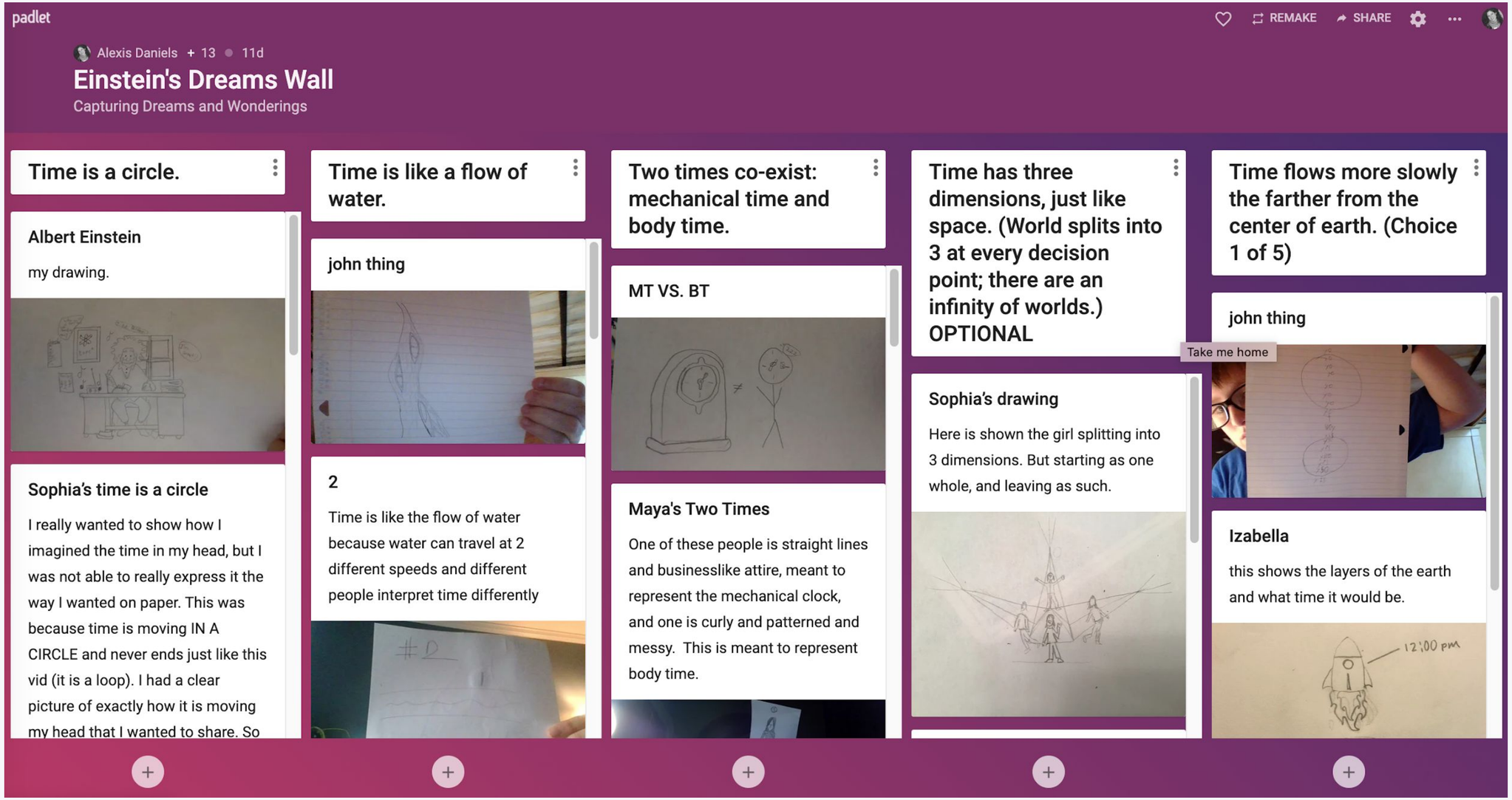
Einstein's Dreams: Discussion Questions

Roles:
Reader 1: Read Question 1
Reader 2: Read Question 2
Reader 3: Read Question 3
Facilitator: Make sure people are staying “on track” and listening to each other’s opinions.
Writer: Document notes from your conversation. Make sure you share notes with alexis@aceraschool.org!

Concept of time	**Time has three dimensions, just like space.**
Excerpt	“Some make light of decisions, arguing that all possible decisions will occur. In such a world, how could one be responsible for his actions? Others hold that each decision must be considered and committed to, that without commitment there is chaos. Such people are content to live in contradictory worlds, so long as they know the reason for each.” (Page 30)
Question 1	Have you ever had to make a hard decision? What was it, and how did it feel to imagine different futures?
Question 2	What does this story say about human decision making and responsibility?
Question 3	How does this conception of time shape human emotions, desires, and behaviors?

acera
The Massachusetts School of Science, Creativity and Leadership

Interdisciplinary Learning (Example Project Board from “Einstein’s Dreams”)



The Massachusetts School of Science, Creativity and Leadership

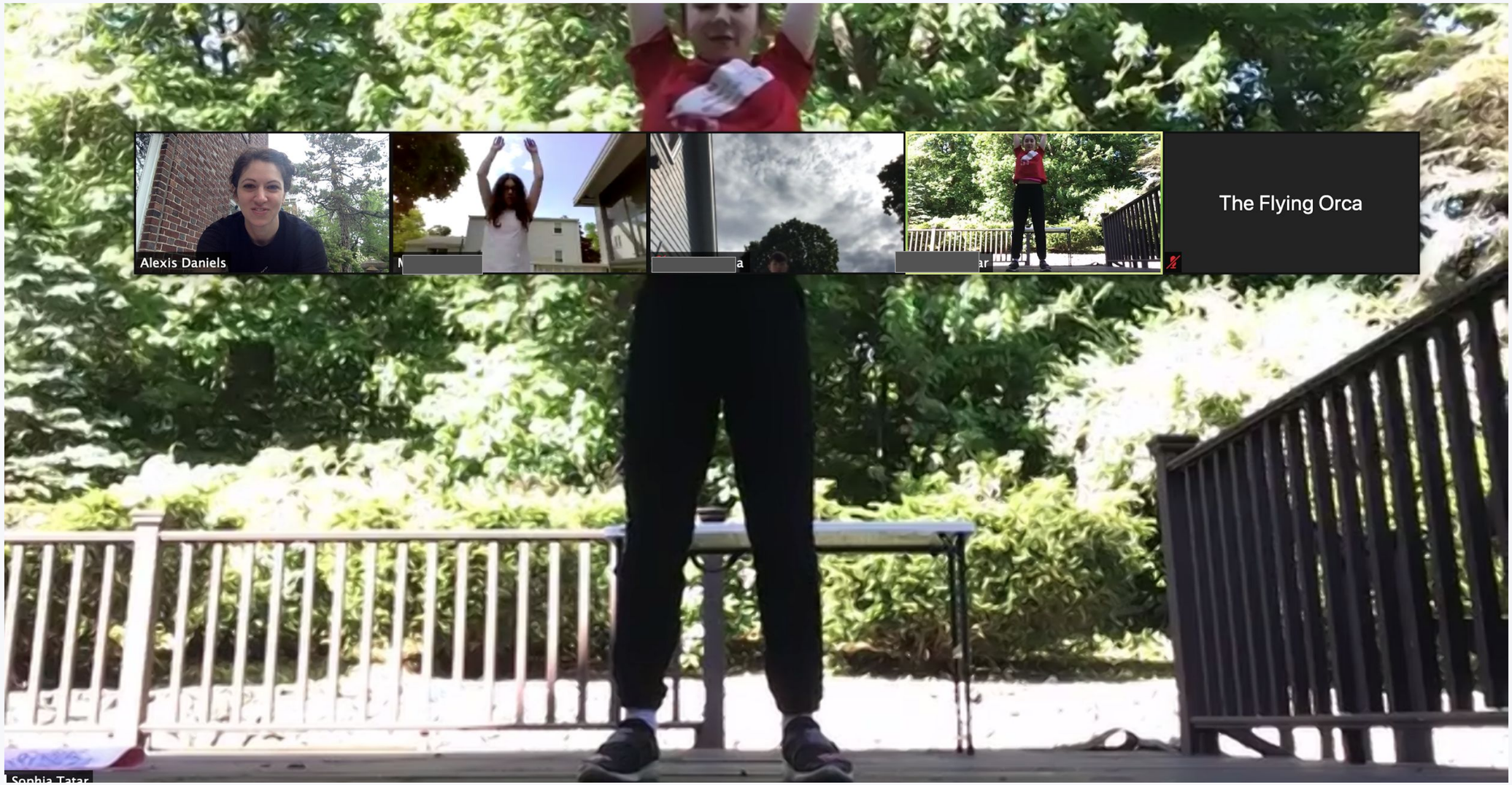
SAMPLE DAILY SCHOOL SCHEDULE

For each class: 4-5th grade, 6-7th grade, and 8-9th grade

9-10:30	**Community Building & Classroom Discussions** on Zoom, inquiry-style learning, student sharing of ideas, pieces, projects. Includes reflection on primary source article homework from night before. Includes "teaching" across disciplines.
10:30 - 12	**Individual work time** on writing, assignments and projects coming out of morning meeting. Teacher coaching and peer feedback meet-ups.
12-12:45	**Socialize** on Zoom (optional). Hang-out to prepare lunch & eat and/or play games virtually w/ teacher pop-ins.
12:45-1:30	**Exercise** requirement: online martial arts/ strength / yoga/ dance class or outdoor bike / run/ hike.
1:30 - 2:00	**On-line math tutorial** Acera curates options (e.g. Aleks), or family continue with public school option. Families chooses and pays for their own approach.
2-3:00	**Finalize & submit products and projects.** Post by 5pm - the day's written, math, projects, and exercise products/photos. Post "evidence" of exercise.
3-3:30	Break
3:30-5:30	Suggested: **Enrichment / Elective Courses** high engagement courses chosen by student. (Additional fee) Alternatively, student works on any public school coursework family chooses to complete.

acera
The Massachusetts School of Science, Creativity and Leadership

Community Building (Example: Student Led Exercises)



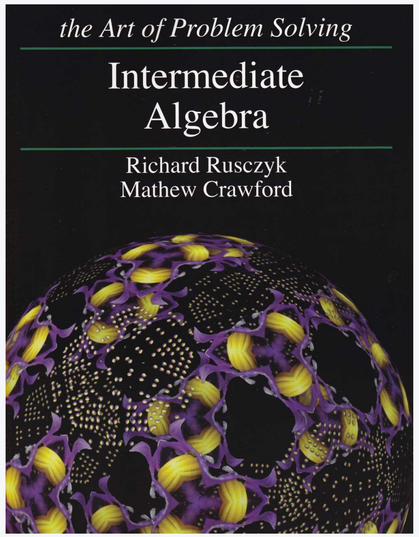
acera
The Massachusetts School of
Science, Creativity and Leadership

ABILITY BASED MATH
Concept Mastery Progress Tracking

Principles We Practice:
Pre-Assess so student can learn based upon what they are ready to learn. Engage in a math program which is responsive to their learning rate and needs, focusing on understanding, not formula execution.

For Pop Up School:
Family chooses whether student enrolls to *mirrors the school-year class *engage in an elective offering, or *uses this opportunity to shore up **or** accelerate mathematical capacities.

<u>Aleks On-Line</u> (Adaptive to student. Focuses on problem solving not rote learning. Uses AI to flex with the student. Graphs Progress re: concept mastery)
**** The approach family chooses will be identified, managed, and paid for by the family and not actively integrated into Pop-up school experience.***



The Massachusetts School of Science, Creativity and Leadership

SAMPLE MS/HS ELECTIVE COURSES 3:30 – 5:30pm

Please Refer to Actual/Current Electives/Enrichment Courses for current options:
https://www.aceraschool.org/enrichment-programs/after-school-programs/

Topic Area	Monday	Tuesday	Wednesday	Thursday	Friday
Lab Sciences Could include LabXchange by Amgen Foundation	9th – 12th Grade Gene editing, secret life of plants, microbiome, science of chocolate Enroll 3X week	6th-10th grade Biowearables & Inventions for Me Enroll 2x week.	9th-12tjh grade Lab science class Enroll 3X week	6th – 10th grade Biowearables & Inventions for Me Enroll 2x week.	9th – 12th grade Lab Science Class Enroll 3X week Mon, Wed, Fri
Maker Space, Art & Architecture	Biophyllic design; nature as inspiration for art, architecture, solutions, and new inventions Enroll 2X week	eFashion, circuitry, Arduino microcomputing: Create My Design Idea	Constructing a sculpture/ bench / structure In your backyard w/ found natural objects that make a metaphorical statement	eFashion, circuitry, Arduino microcomputing	Biophyllic design; nature as inspiration for art, architecture, solutions, and new inventions Enroll 2X week
Social Systems & Simulations	Power, change, & humanity: Putting Revolutions On Trial Enroll 2X week	Philosophy Salon: Strategies for argumentation to impress your friends ☺ Enroll 1-2x / week	Power, change, & humanity: Putting Revolutions On Trial Enroll 2X week	Philosophy Salon: Applications to Contemporary Issues Enroll 1-2X week	Genesis of World Religions Enroll 1x week
Engineering, Computing & environmental Science	Composting systems, gardening, Enroll 1x week.	Biomaterials: Climate Change Engineering Solutions Enroll 2x week.	Learning to code to create something new which teaches about a topic you care about Enroll 1-2 x week	Biomaterials: Climate Change Engineering solutions Enroll 2x week.	Learning to code to create a game or tell a story Enroll 1-2 x week

Parent Galvanizers Can Help Us Coalesce/Launch New Offerings. Contact enrichment@aceraschool.org or popup@aceraschool.org

Other sample topics include: Economics, Psychology, Art, Cooking, Home-based woodshop, Film making, Government, Culture Studies

acera
The Massachusetts School of Science, Creativity and Leadership

Hands-On Learning (Kitchen Chemistry: Sugar Sculptures, 4-5th)

Get Ready

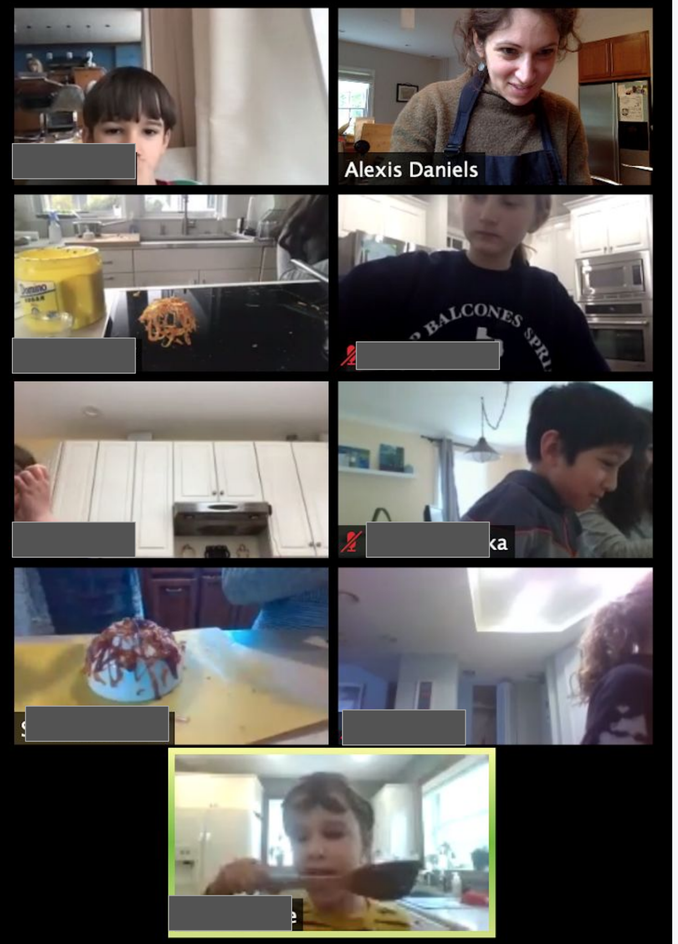
Materials:

- 1/2 cup granulated sugar
- metal ladle OR porcelain bowl
- Canola or vegetable oil (spray, or liquid with a brush)
- plastic cutting board
- fork
- small sharp knife
- wooden spoon or heat proof spatula
- oven mitts
- stovetop
- suggested but not necessary: candy thermometer

Do

1. Melt sugar in saucepan over medium heat until medium caramel color.
2. Oil the porcelain bowl (outside). Place bowl on cutting board.
3. Stir your caramel, then drizzle over the cup - first vertically, then horizontally.
4. Cut away excess caramel. Let cool.
5. Gently pull the structure from the cup.
6. How will you eat it…?!

Done



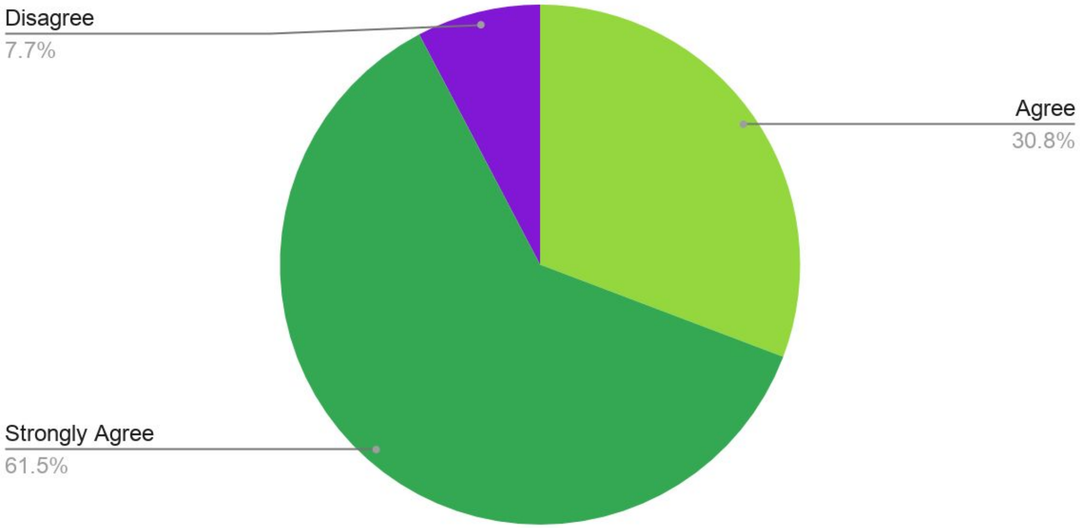
Data from Pilot Program

Sources: Mid-program Survey
& Parent-Teacher Conferences

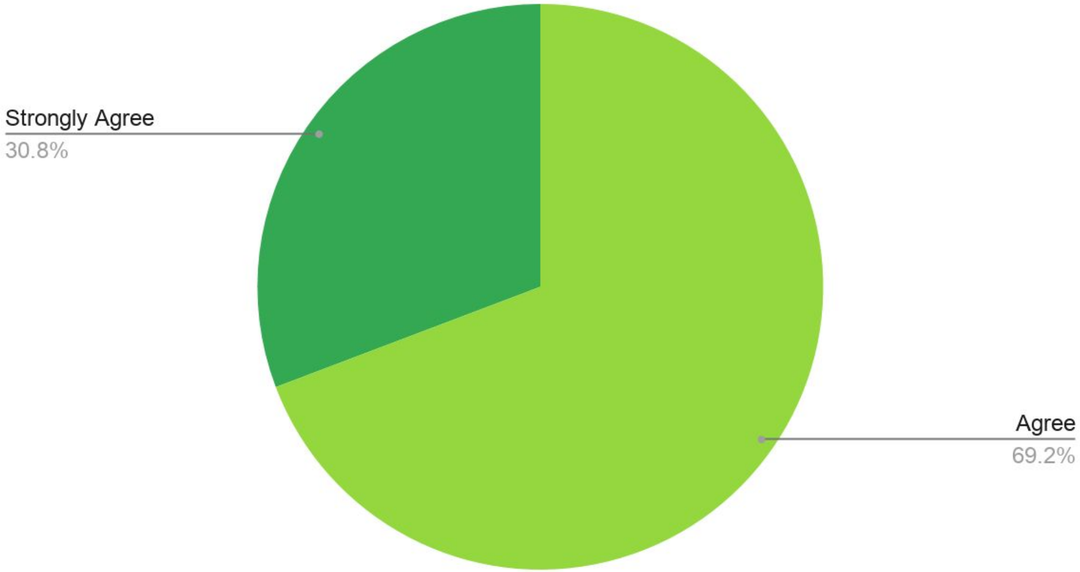
(April - June, 2020)

acera
The Massachusetts School of
Science, Creativity and Leadership

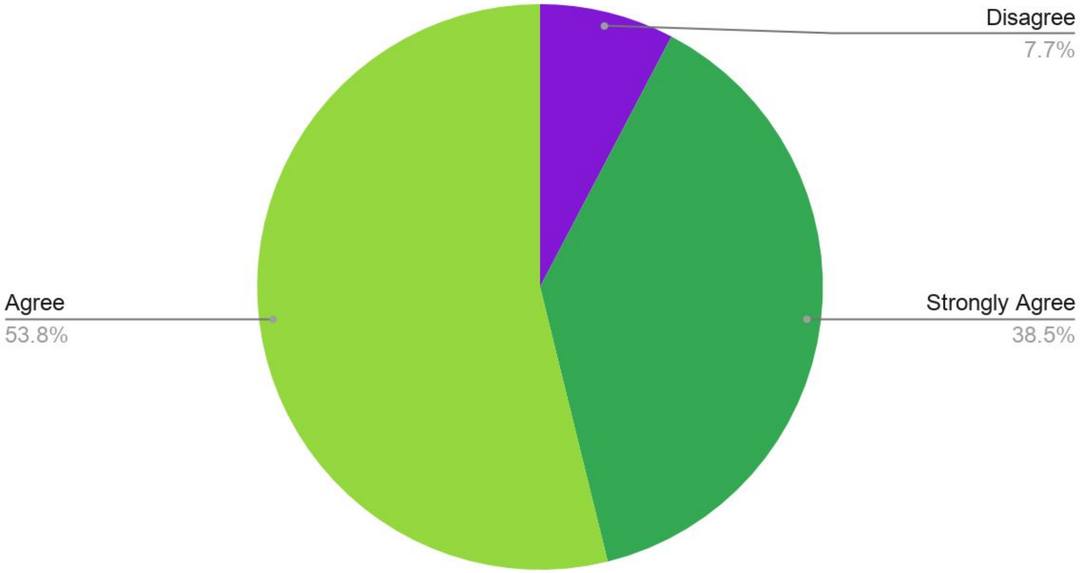
My child is engaging in ideas, work and/or projects that they find interesting or meaningful.



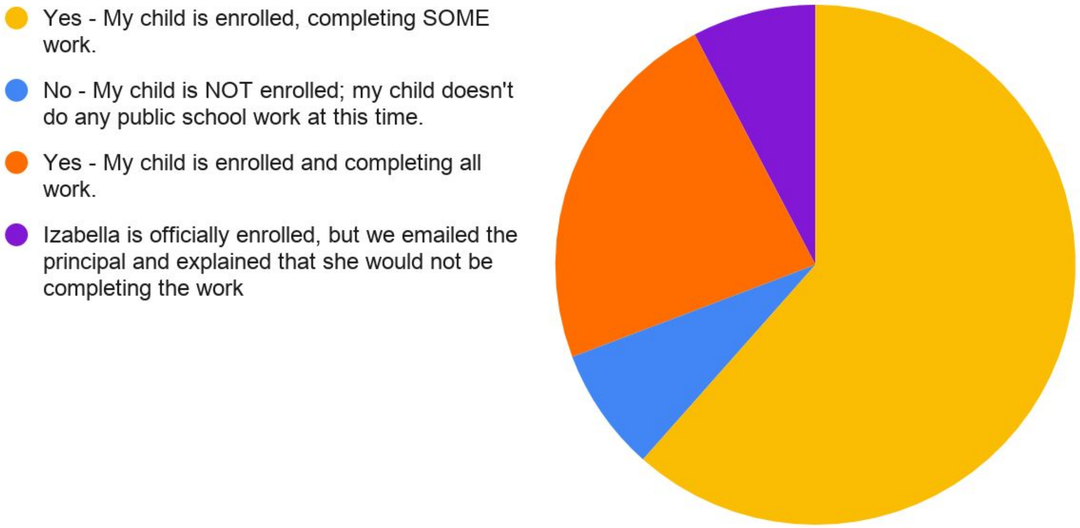
My child feels connected with the teacher and the students.



The overall rhythm and schedule is working well.



Is your child enrolled in public school? Is s/he completing public school assigned work?



What, if any, differences have you observed in your child since starting Pop Up School?

"Pop Up School has made a huge positive impact on my daughter's **mood and general outlook**. The regular schedule, structured interaction and engaging topics have helped her **manage anxiety and sadness about the pandemic** and lack of "regular life" activities. Pop Up School has **helped make our whole family's life at home more pleasant.**"

"She is very **excited** to learn new topics and **discussions are engaging & educational**."

"More **enthusiastic** about learning and school. More easily follows a schedule for the day. More **engaged** about school and other academic activities. Argues less about expectations. More willing to defer playing video games and limit it to certain times of the day."

"My child has **more energy and enthusiasm for life**. The quarantine hit her hard emotionally, but having a routine, a community, a live, if remote, teacher have made her happier and less mired in anxiety."

"Glad he's on some kind of morning **schedule**."

"He definitely **seems happier and less anxious**, it is something for him to organize himself around."

"Our daughter has a **renewed sense of purpose and direction** since enrolling with the Acera school. Before enrolling, she spent a lot of time reading which she enjoyed, but we didn't see a spark in her; since being part of this program she has clear targets and **intellectual challenges** she is grappling with."

acera
The Massachusetts School of Science, Creativity and Leadership

Themes from End of Program Parent-Teacher Conferences (6/7th Grade), n = 9

- **High engagement (x7)**
  - Student eagerly discusses school day, unprovoked. Prompts rich “dinner table conversations”!
- **Growth in independence (x3)**
  - Parents less involved in school work from Week 1 to Week 8
- **Less anxiety (x3)**
  - Shift in motivation; no grades, less pressure → joy in learning and exploring
- **“Expectations exceeded” (x6)**
- **Change in thinking (x3)**
  - Nuanced questioning, more critical/conceptual thinking
- **Would readily sign up** for Pop Up next year (x6)
- **Happier child and/or family unit (x8)**

acera
The Massachusetts School of Science, Creativity and Leadership

2020/2021 POP-UP SCHOOL OFFERING

Who?:

- Three multi-age cohorts: grades 4-5th, 6-7th, 8-10th.

What?:

- Core Classroom Morning Meeting, assignments, schedule frame 9am-3pm
- (Optional: Electives 1-5x / week 3:30 – 5:30pm for additional fee per class)
- (Optional: Writing coaching, executive functioning support, counseling, math support, or more on a per-needed basis for additional fee - contact popup@school.org to discuss options)

When?:

	Fall Term			Winter Term		Spring Term		
Session Dates	September 8 - Oct 2	October 5 - Oct 30 (No School 10/12)	November 2 - Dec 18 (No School 11/25-27)	January 4 - Feb 12 (No School 1/18/21)	Feb 22 - Mar 19	March 22 - April 16	April 26 - May 21	May 24 - June 18
# of weeks	4	4	7	6	4	4	4	4

Cost?

- $450/week

Students join for 4-37 weeks. Flexibility to join for month, term, or whole year.

acera
The Massachusetts School of Science, Creativity and Leadership

What do I tell my public school? What are my next steps?

Your family will need to decide on one of the following options:

1. **Dually enrolled** - Stay enrolled in your public school; opt into Acera as a supplemental program to reap benefits (structure to the day; synchronous, engaging class interaction and assignments; inquiry-driven, individualized work).
   - Families can let their school/ teacher know that they are enrolled in this -- if this enrollment and the schedule have conflict with public school expectations.
   - Acera can reduce project, work and accountability expectations in a way that fit the student, if dual enrollment is too much. We are flexible.

2. **Full Year at Acera** - Tell your public school you are enrolling in an independent school program for next year. You do not need to participate in your public school program.
   - Some may use Acera as a "homeschooling" option, in which case you will need to submit a "homeschool education plan" to the school's central office for it to "count" as school if you are "opting out" of your district's program. NOTE: School districts may not be enforcing that norm 2020/2021 school year due to these unprecedented circumstances.
   - We will provide a Report Card/Transcript for full year students; they will advance to the next grade the following school year.

3. **Part year at Acera** - Join Acera for 1 month (minimum) or multiple months, and re-enter public school when desired.
   - "The public schools will honor students who start off at ACERA and later seek to re-enter the main stream public schools programs. The question will be availability of options if class sizes are limited and courses are reduced to save money. The Public Schools must take students who reside in their communities regardless of when they enroll. Keep a portfolio of work completed. Assuming that a student who first attends ACERA and then returns can demonstrate capacity, then progress to the net grade won't be a problem. This is evidenced by the numbers of student who have returned in the past from either 'Homeschooling' or other private/parochial programs." - Roy Belson, Former Superintendent of Medford Public Schools
   - This option allows flexibility to families who need or desire it.

acera
The Massachusetts School of Science, Creativity and Leadership

Questions & Next Steps

Next Step:

- Enroll by the session (~1 month), trimester, or year. Email popup@aceraschool.org with questions.
- Optional: Attend "live" info session, with child or another family member

  12 pm on FRIDAYS in August (8/7, 8/14, 8/21, 8/28) or September 4
- Let us know if you'd like to co-host a Pop Up School parent info session for a group of your friends/ colleagues/ neighbors.
- Read updates https://www.aceraschool.org/remote-learning/popup-extension-school/
- Spread the word about this emerging possibility if you wish to help make it a reality!

Contact admissions@aceraschool.org
For core school program interest
and
Contact enrichment@aceraschool.org
For Electives/Enrichment course interest