A GUIDE TO:

The Institute for 21st Century Education

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Welcome to the REINVENTION of School

Today's young leaders need more than the opportunity to excel in the traditional academic disciplines. They need the power of Hathaway Brown's Institute for 21st Century Education: the chance to unleash their creativity; the freedom to discover an authentic self; and a unique experiential learning platform that prepares them to get big things done in a world that doesn't operate by the predictable rules of a classroom syllabus.

An authentic expression of Hathaway Brown's most important promise to inspire our students in the words of our motto, “to learn not for school but for life,” the Institute represents a daring and visionary reimagining of the school experience. Its goal is nothing less than to empower HB girls to shape their own best versions of themselves, and to rise boldly to the challenges of their times.

At its most basic level, the Institute is a constellation of sophisticated experiential learning programs emanating from its 11 distinct Centers. All of the programs are designed to reach beyond the walls of school and enable students to actively engage with the ideas and careers that are having a transformative impact on 21st century life. Each program is elective and ungraded, but at the same time substantive and highly motivating, offering challenging opportunities for learning and mastery. The Institute works in tandem with HB's extraordinary core curriculum and provides the means to apply concepts learned in HB classrooms to the real world—uniting learning by thinking with learning by doing.

With its wide range of Centers, each with a unique focus, the Institute has been hailed nationally for the way it has reinvented girls’ education for the 21st century, opening up new pathways for self-discovery, leadership, innovation, and service to society. A recent HB graduate summed up her experience with the HB Institute: “The Centers have each shaped my experience in immeasurably profound ways. Because of how they have shaped me as a person and student, I cannot imagine life without them.”
Personalize Your Own Learning and Discover Your Passion

Where most schools script your learning, HB lets you design your own path, and the Institute for 21st Century Education is one of the main ways we’ll help you do it. You choose which Centers you’d like to join, and there’s still room to dabble in others unofficially. Take the time to become fully immersed in a question that means something to you. Nearly every HB Upper School student participates in at least one of the Centers, and many are actively involved in multiple Centers.

Learn Beyond the Classroom

Another valuable dimension of the Institute stems from the exposure to thought leaders, experts and mentors the Centers provide. These individuals model what it’s like to have good, interesting work and you become a close witness to and partner in the impact they are having. Field experts coach you as you make new connections with the material and apply your thinking to new contexts. The Centers place you in new and exciting settings, pushing you to become more agile, responsive, and capable of responding to challenges in the future. You’ll take your work public by consulting with an expert, performing for an audience, putting together an exhibit, or engaging in a service learning project. The Institute will nurture your capacity to become an informed and passionate problem solver for this uncertain world. You’ll begin to realize what is needed and how much you can give.

Make a Difference

At HB, we are seeking to orient you to some of the world’s complex problems and issues that present challenges for human society across the globe. Though different in approach and structure, each of our Centers is designed to immerse you in important and emerging ideas from a variety of fields, providing you with an opportunity to challenge boundaries between people and traditional disciplines. Through fieldwork, placements, speakers, trips, and more, Centers create a bridge to the real world. They allow you to grapple with applications, innovations, and make the lives of real people better by finding solutions to pressing problems. Through the Institute, we work together to understand and address issues with a design for the greater good in mind.
Who’s in charge: Mrs. Seals — cseals@hb.edu

Where it is: N112

What it does: The Aspire Program is a tuition-free academic enrichment and leadership development program that targets high-achieving girls limited in opportunity because of low family income and lack of exposure to higher education. Since 2002, Aspire has cultivated the leadership of girls from under-resourced schools in the Cleveland area, helping them expand their educational opportunities.

In many of their home schools, Aspire students experience classes where coursework is insufficiently challenging, where rooms are overcrowded, where schools and neighborhoods are lacking in resources, and where there is a shortage of sufficient college guidance. Aspire answers the call for ambitious young women who long for enriching summer opportunities, mentors, and role models who know them, and a community that expects and supports their success.

At Aspire, students are mentored by a dedicated group of high school and college students whose teaching talent is cultivated to bring new ideas and change to our schools.

How to join: Throughout the academic year, Aspire provides volunteer opportunities in the areas of tutoring, chaperoning, and in-office administrative support. Additionally, students in Grades 10-12 who are looking for rewarding paid summer internships can apply to become Junior Teachers.

Junior Teachers regularly design and teach daily activity and Choice periods, support Morning Meetings, plan special activities, and set an upbeat, positive tone in the program. Because of the closeness in age to Aspire students, Junior Teachers are particularly powerful role models.

Applications are available in December at www.hb.edu/aspire and are typically due in mid-February.
Who’s in charge: Mrs. Krist — mkrist@hb.edu

Where it is: Room C255

What it does: The Center for Business & Finance is dedicated to students interested in civic leadership, corporate or nonprofit management, entrepreneurship, economics, and finance. The Center also counsels future leaders to be wise and responsible with money, and to be keenly aware of the positive consequences of sound financial management and ethical, informed decision-making. Business & Finance students also operate their own for-profit business, the Hath Caff, HB’s new café located in the Learning Commons.

How to join: Students can begin Center work in Grade 10 by taking Business and Finance I, in which they participate in Junior Achievement’s Titan business simulation and begin on-site business training with Ernst & Young. Girls can continue to explore key business areas in Business and Finance II. In these courses, the Center examines entrepreneurship, strategy, marketing, accounting, economics, finance, and business leadership.

Graduation Designation: Seniors can graduate as Business & Finance Scholars by following this path:

- Business and Finance I (Grade 10, generally)
- Business and Finance II (Grade 11, generally)
- Economic Policy, Ethics and Leadership capstone course (Grade 12)
- The defense of a thesis paper (Grade 12)
Who’s in charge: Ms. Hiedemann — shiedemann@hb.edu  
Where it is: C252

What it does: The Center for Civic Engagement connects students and faculty members to the city of Cleveland and beyond through leadership opportunities, hands-on service, international immersion experiences, and Service Learning classes.

How to join:

COMMUNITY-BASED LEARNING COURSES: Learn, serve, and more through hands-on service, field trips to local organizations, and in-class activities focusing on the Greater Cleveland community.

CO-CURRICULAR SERVICE: Participate in ongoing service projects addressing hunger, homelessness, education, wellness, and other important community challenges.

MENTOR GROUP SERVICE: Head out in the community with your mentor group! Students in grades 9-11 will participate in at least one service project with their mentors.

PHILANTHROPY: Join the GROW Foundation, where you allocate grants to community-based organizations, issue microfinance loans, and manage the dress-down fund.

LEADERSHIP: Plan and implement off-campus service opportunities and educate the student body about community issues through your role as a Service Learning Officer.

SPEAKER SERIES: Attend lunch forums featuring community leaders from Greater Cleveland.

Graduation Designation: Seniors can become Service Learning Fellows by completing:

- Community-Based Learning I (Grade 9 or 10)
- Advanced Community-Based Learning (Grade 10 or 11)
- Civic Engagement credit—fulfilled through multiple potential pathways, including service, philanthropy, and international travel (Grades 10-12, generally)
- Capstone project (Grade 12)
Who's in charge: Ms. Burnett — jburnett@hb.edu
Mr. Morse — jmorse@hb.edu

What it does: The Center for the Creative Arts offers an array of experiences in the Performing and Visual Arts, culminating in the senior year in showcasing graduating scholars’ works and/or performances.

How to join: Whether interested in the Visual Arts or Performing Arts designation, students should begin the process in freshman or sophomore year by meeting with their art or performing arts teachers, or any members of the Visual Arts or Performing Arts department to discuss requirements needed for the designation.

Graduation Designation: Seniors can graduate as Creative Arts Fellows in the Visual or the Performing Arts by following one of these paths:

**VISUAL ARTS:** Complete a minimum of 1.5 credits in Visual Arts classes
Participate in the Young Writers and Artists Festival for at least two years
Complete at least one advanced visual arts class outside of HB or participate in an internship or residency in visual arts
Enter a minimum of three art competitions or exhibitions
Complete a capstone portfolio, called a “concentration,” during the junior and senior years; consists of 12 exploratory works and 12 finished works of a theme or technique

**PERFORMING ARTS:** Complete a minimum of 1.5 credits in Performing Arts classes, including an advanced class in the area of concentration (AP Music Theory, Advanced Songwriting, Advanced Technical Theatre, Black Box Ensemble, Bravuras, Contemporary Dance Ensemble, or 3rd/4th year of Orchestra)
Complete a minimum of one performing arts experience (master class, workshop, festival, or competition) outside of HB, or participate in an internship or residency in the performing arts
Participate in at least three extracurricular performances
Complete a capstone project beginning junior year and finalized in senior year

Where it is: Performing Arts spaces and Art Studios
Who’s in charge: Mr. Vogel — jvogel@hb.edu

Where it is: C162

What it does: The CGC promotes global understanding and citizenship, fosters a deep appreciation for the cultures of the world, challenges you to think critically about the world’s most pressing issues, and helps you understand how the United States fits into a global context.

How to join:

GLOBAL SCHOLARS PROGRAM: This four-year course of study examines different regions of the world, global leaders, pertinent issues, and politics. You’ll engage in relevant discussions and develop critical-thinking skills. Global Scholars 2/3 students tackle pressing global issues. Seniors may choose from several capstone courses: International Relations Honors, Economic Policy Honors, Art History Honors, World Literature Honors, and American Government: Rights, Issues, Politics. Rising freshmen must decide to enter the program by the end of Grade 8, so that they may be designated as Global Scholars on their transcripts.

INTERNATIONAL PROGRAMS: The Center offers programs to such places as Australia, Chile, Colombia, the Florida Keys (MS), France (MS), Iceland, Italy, Nicaragua, South Korea, Spain, and more.

EXCHANGE PROGRAMS: The CGC works with partner schools to identify and plan exchange programs of great merit for students in Grades 9-11. The Center also identifies host families for foreign students.

Graduation Designation: Seniors can graduate as Global Scholars by following this path:

Global Scholars I (Grade 9)
Two years of Global Scholars 2/3 (Grades 10-11, generally)
One capstone course (Grade 12)
The defense of a thesis paper (Grade 12)
Four years of a World Language (Grades 9-12, generally)
A comprehensive Geography exam (Grade 12)
At least one purposeful international experience (Grades 9-12)
Who’s in charge: Ms. Shah, kshah@hb.edu  
Where it is: C256

What it does: Focused on the future of women’s leadership, the Center encourages and informs girls as they bring forward ideas about how to make the world more efficient, more meaningful, more compassionate, and more creative. Programming in each division allows girls to explore their own leadership styles and practice skills that make it possible to apply sound solutions to pressing needs. The Center simultaneously helps girls discover ways to bring a sense of well-being to their leadership work, focusing girls on strategies that make it possible to bring health, wellness, leadership, and power together.

How to join:

WORKSHOPS: Do you want to learn how to run a meeting or create a plan for a club? Learn to network with individuals who can help? Negotiate your babysitting salary? Manage your time better so you can fit in what’s important? If you want to work on any of these areas, sign up for the various workshops that the Center for Leadership & Well-being offers during X and Lunch. They’re open to all girls in the Upper School. Who knows? What you discover may make it easier to accomplish all that you are trying to do.

LEADERSHIP CLASS: Take Leadership Seminar, a class that meets during X twice a cycle for a year, to explore what it takes for you to lead well. You’ll get a comprehensive look at essential leadership skills and a great deal of support as you practice them.
CENTER FOR MULTICULTURAL AFFAIRS

Who’s in charge: Mrs. Seals — cseals@hb.edu

Where it is: N112

What it does: We all have much to learn and gain from working with people of all races, ethnicities, economic classes, experiences, and perspectives. The Center for Multicultural Affairs is here to help all members of the HB community become comfortable with themselves and knowledgeable about others so they may thrive in our multicultural world. The Center also serves as a support for faculty and staff as they seek to develop as multicultural educators and create an inclusive community that embraces and celebrates individuality and difference.

How to join: Contact Mrs. Seals to discuss your interest in joining or taking a leadership role in developing programs, clubs, or activities designed to support and validate the experiences of all individuals in the HB community.

SCHOOL-WIDE ACTIVIST GROUP: This student-led group is committed to educating students to become activists in identifying and addressing equity and social justice issues. Students in this group are trained in how to effectively facilitate conversations and activities focusing on issues of diversity, equity, and justice.

AFFINITY GROUPS: Affinity groups are designed to create safe spaces within which members who share a common identity can share experiences and learn more about themselves. The Center for Multicultural Affairs sponsors affinity groups in response to the expressed needs of members of the community.

CLASSES: The Center offers a number of electives for which students in the Upper School can register: Social Justice & The Media, TRUST, Multicultural Reading Group, and more.

HB.edu/multicultural
Who's in charge:  Mr. Parsons — spasons@hb.edu
Where it is:  C249

What it does:  The Writing Center offers classes, workshops, discussion forums, and individual conferences to help students discover and develop their voices.

How to join:

**OSBORNE WRITING FELLOW PROGRAM:** To receive this graduation designation, students must successfully:
- Take at least two years of writing electives, including at least one year of The Writing Community;
- Complete either AP Lit, Honors Creative Writing, or Honors World Lit as a capstone course;
- Participate at least two years in the Young Writers and Artists Festival.

**HB IN RETROSPECT:** The Writing Center is the production hub of HB's online student newspaper and the annual arts and literature journal, *Retrospect*, Ohio's highest award-winning student magazine. Led by a team of senior editors, students create all the content and run every aspect of this vibrant student forum. Visit hbinretrospect.com.

**VISITING WRITER SERIES:** Throughout the year, professional writers spend time on campus visiting classes, hosting lunch forums, and leading workshops. Past guests have included writer Alexandra Fuller, former Poet Laureate Billy Collins, Marjane Satrapi (*Persepolis*), best-selling novelist Paula McLain (*The Paris Wife, Circling the Sun*), award-winning poet Jamaal May, spoken-word star Sarah Kay, Pulitzer-Prize winner Michael Dirda, and many more.

**YOUNG WRITERS & ARTISTS FESTIVAL:** This annual event brings a collection of the most talented and successful writers from around the world to campus to lead full-day workshops. The Festival is an unmatched opportunity to go deep with a passion or to try something entirely new. Workshops are offered in memoir, poetry, spoken-word, songwriting, fiction, comics, playwriting, and more.

**PEER WRITING PARTNERS:** Upper School students share their expertise, offering one-on-one conferences in the Middle School writing center and leading group creative writing workshops. This program also pairs freshmen writers with juniors and seniors who mentor them along in the craft.

**Graduation Designation:**
Seniors can graduate as Writing Scholars/Fellows by following this path:

- The Writing Life (Grade 10, generally)
- The Writing Community (Grade 11, generally)
- One capstone course (Grade 12)
- The defense of a creative or academic thesis (Grade 12)
- Participation in the Young Writers & Artists Festival

[HB.edu/write](http://HB.edu/write)
SCIENCE RESEARCH & ENGINEERING PROGRAM

Who’s in Charge: Dr. Miller — cmiller@hb.edu

Where it is: C34

What it does: SREP students work in research labs with professional scientists and engineers at Case Western Reserve University, Cleveland Clinic, the Cleveland Museum of Natural History, University Hospitals, NASA Glenn Research Center or other local institutions. Students spend once a week after school and many weeks in the summer conducting research on topics ranging from stem cells to climate change and space materials to novel polymers. Progressing from a training role in the lab to a contributing member of the research group is incredibly exciting, empowering, and fun. In class, you’ll develop as a professional and receive information on entering prestigious science competitions like those sponsored by Siemens and Intel.

We ranked 7th in the nation for Siemens Finalists while run by Discovery Education
We had more Intel STS Finalists in the competition’s first 17 years than all schools in Ohio combined
Our students can qualify to go directly from our science fair to international science fairs such as Intel ISEF and ISWEEEP

How to join: Register for SREP Seminar, which meets once per cycle during free period. The class has no books, tests, or homework. In class, you’ll spend your first year brainstorming and learning from other students to help identify a specific scientific discipline in which to do research. In consultation with other teachers and partner scientists, we will work together to find a placement that’s in keeping with your interests and abilities. The seminar class can be added or dropped at any point without penalty. However, once you’re assigned to a lab, you’re expected to be committed to that placement for the rest of high school.

Graduation Designation: Graduate as a Science Research & Engineering Scholar by:

Enrolling in SREP Seminar in Grade 9 (preferred) or 10 through Grade 12
Obtaining a placement in a research lab
Completing a multi-year professionally mentored project
Formally document your research in a scientific manuscript at the beginning of senior year and submit it for entry into a national competition
Who’s in Charge: Ms. McMillan — tmcmillan@hb.edu

Where it is: C256

What it does: Sustainability is about being “green,” but it is so much more than this. At its heart, it is about designing a world that allows life to flourish – our individual lives, our collective lives in community, and the life of ecological systems all around us. The Center for Sustainability engages the HB community with thinking, learning, and action to help build a flourishing future. It does this by partnering with teachers in all divisions to introduce new perspectives into the core curriculum, build co-curricular programs, and offer elective classes. The Center also works with the school’s administration and facilities department to find ways to reduce the environmental impact of our facilities and operations.

How to join:

Sustainability Electives: Meeting one to two times per cycle, these project-based classes change in their focus from year to year. What they all have in common is putting sustainability principles into action to create positive change.

Special Events: Offered throughout the year, always new, always exciting, stay tuned for things such as climate change negotiation simulation (like Model UN), a chance to volunteer at the Cleveland Botanical Garden’s annual celebration of local food, and opportunities to talk with Nicaraguans working on sustainable development projects in their communities in Nicaragua.

INDEPENDENT WORK: The Center for Sustainability helps students interested in doing independent projects related to sustainability, often in collaboration with other Centers in the Institute. Consider meeting project or research requirements for other Centers or classes by working with the Center for Sustainability.

HB COMMUNITY GARDEN: Get your hands dirty tending the HB vegetable garden. Whether you have time in the fall or spring or over the summer, we are always in need of garden volunteers.

HB.edu/sustainability
Who's in charge: Mrs. Jackson — ljackson@hb.edu  
Mr. Kallmeyer — bkallmeyer@hb.edu

What it does: The Center for Technology & Invention is an innovative and collaborative program that encourages students to connect math, engineering, science and the arts with critical and design thinking. The CTI is centered around Hathaway Brown’s IDEA Lab — a hub for creativity and ingenuity that houses the latest in digital fabrication equipment:

- **(3) 3D Printers & (1) 3D Scanner** - create physical objects from 3D digital models or make a 3D digital copy of an existing object.
- **(2) Laser Engravers** - engrave or cut wood, acrylics, plastics, stone, or fabrics.
- **(1) Vinyl Cutter** - create & cut designs in vinyl, heat transfers, magnetic materials, card stock, etc.
- **(1) Desktop Milling Machine** - use this “smart chisel” to design and fabricate 3D prototypes using wax, wood, aluminum, acrylics or other plastics.
- **(1) CNC Router Machine** - cut, drill, carve or machine large-scale designs out of wood, plastic, aluminum, and other materials.

The Center also serves as the hub for HB’s FIRST Robotics team, Team 2399, the Fighting Unicorns.

Where it is: IDEA Lab

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**CENTER FOR TECHNOLOGY & INVENTION**

[HB.edu/techinvention](http://HB.edu/techinvention)
How to join:

**COLLABORATION WITH OTHER CENTERS:** Students involved with other Centers, such as the Center for Business & Finance or the Center for Sustainability, may find themselves needing to invent and prototype a design, in which case they may utilize the tools and resources available in the CTI. Contact Mrs. Jackson and/or the director of another Center to discuss collaboration opportunities.

**SMALL GROUP/INDIVIDUAL PROJECTS:** Students who have an idea of something they would like to create, invent, or patent may work on projects with as much guidance as needed during the IDEA Lab’s open lab times, taking advantage of the equipment available through the Center. Projects may involve computer programming, graphic design, 3D modeling, product prototyping or working with materials such as (but not limited to) wood, plastic, metal, wax, acrylic, or fabric.

**IDEA LAB LEADER PROGRAM:** Students interested in learning more about the digital fabrication tools and equipment in the IDEA Lab and who want to dive into the world of “making,” can become designated IDEA Lab Leaders. Requirements include taking *Intro to IDEAS Lab: Innovation, Design, Engineering, Art & Safety* to learn required safety rules and standards and become proficient in operation of the major equipment and tools in the lab; and by completing a self-directed mini project to demonstrate ability and skill-set.

**ROBOTICS:** Students interested in working on the electrical, mechanical, or programming aspect of robotics may join the robotics team or work on independent creative projects involving the use of robots, embedded computer systems, or other projects yet to be realized. Recruitment for the robotics team takes place in the fall, with the build season running through the months of January and February.

**Graduation Designation:** Seniors can graduate as Technology & Invention Fellows by following one of three tracks: General, Robotics, or IDEA Lab. You can find details about the coursework and requirements for each option online at hb.edu/techinvention.
Through HB’s signature Institute for 21st Century Education, students are encouraged and empowered to design their own learning.

No other high school in the U.S. offers the type of passion-producing experiential learning opportunities that HB girls have through the Institute’s 11 distinct Centers. Students can delve deeply into one or more areas of interest, including global citizenship, science research and engineering, writing, business, leadership development, civic engagement, and creative arts.

In addition to offering personally transformative experiential curricular opportunities in a variety of disciplines, the Institute for 21st Century Education and the real-world exposure it provides set HB students apart in the college process. For good reason, says leading childhood development expert and author Dr. Catherine Steiner-Adair:

“The HB model of education and the school culture create a very specific kind of educational experience that I believe provides girls with the traits that are most highly correlated with success.”