

MIT ESP Splash! 2014 Parents' Program

While your kids enjoy Splash, join us in the Ray and Maria Stata Center (Bldg. 32) for a selection of talks and sample classes. You'll also find tea, coffee and a space to work, relax, or chat with other parents.

All parents' program events will be held in lecture halls 32-123 and 32-141. Descriptions and speaker biographies can be found on the following pages.

Saturday

10:00 – 11:30	Campus Tours led by Ian M. '14 and Alex S. '18	
11:30 – 12:30	College, Gap Year and/or Career? Helping Your Teen Decide Within a Framework of Cooperation and Respect <i>Lisa Nalbone</i>	Spectrograms: What Does Sound Look Like? <i>Sample Splash class by Chelsea V. '15</i>
12:30 – 1:30	Lunch Break	
1:30 – 2:30	Inside the Admissions Office: A (Former) Admissions Officer Explains What You Need to Know to Go to College <i>Amy Estersohn</i>	Hacking Flavor <i>Sample Splash class by Abby Noyce</i>
2:30 – 3:30	MIT Admissions Information Session <i>Chris Peterson</i>	Cyberespionage <i>Sample Splash class by Benjamin T. '16</i>
3:30 – 4:30	Everything You and Your Kids Should Know About High School Social Life <i>Alec Lai</i>	Democracy <i>Sample Splash class by Ziv S. '16</i>
4:30 – 5:30	Works in Progress: How an Incremental Mindset Can Free Us to Grow <i>Aimee Yermish</i>	Black Holes, Singularities, and the Event Horizon: A Journey into the Abyss <i>Sample Splash class by Michael Shaw</i>
5:30 – 7:30	Dinner Break <i>Ask us for restaurant recommendations!</i>	
7:30 – 9:00	Big-Screen Movie: Dead Poets' Society <i>Open to Splash parents and guardians only</i>	

Sunday

10:30 – 11:30	How to Motivate Your Kids <i>Alec Lai</i>	ESP and Learning Unlimited: Behind the Scenes <i>Jordan Moldow</i>
11:30 – 12:30	Non-Linear Thinking in a Linear World <i>Josh Shaine</i>	Heart Rhythm Meditation for Parents <i>Robin Goldberg</i>
12:30 – 1:30	Lunch Break	
1:30 – 2:30	More Educational Opportunities: Helping Your Students Find Them <i>Dan Zaharopol</i>	
2:30 – 3:30	Big-Screen Movie: The Finland Phenomenon <i>Open to Splash parents and guardians only</i>	

Please note that most parents' program presenters are speaking as individuals, and not on behalf of MIT ESP. Thus, MIT ESP as an organization does not necessarily endorse the views our speakers contribute through their talks. Thank you for your understanding.

Talks

College, Gap Year and/or Career?

Learn About Helping Your Teen Decide Within a Framework of Cooperation and Respect

Lisa Nalbone

Saturday 11:30 – 12:30 AM, Kirsch Auditorium (32-123)

Our changing world is full of new opportunities for learning and for careers, many of which can feel completely “outside the box” for today’s parents. The variety of college and non-college choices can be exciting and overwhelming! Learn a process to help you and your teen strengthen your relationship and decision-making skills as you navigate the challenges of guiding your young adult towards sensible choices for their future.

*Lisa is a strong advocate for lifelong learning, a writer, and a program advisor at UnCollege.org. Lisa draws on her experience as an educator and a parent (her son is a Thiel Fellow and the author of *Hacking Your Education*) to share wisdom, warmth and humor at LisaNalbone.com.*

Inside the Admissions Office:

A Former Admissions Officer Explains Everything You Need to Know to Go to College

Amy Estersohn

Saturday 1:30 – 2:30 PM, Kirsch Auditorium (32-123)

In this session, parents will: 1. Learn how admissions officers think (hint: it's not about the number of hours of community service); 2. Learn to use this knowledge to create a list of colleges to research; 3. Have an opportunity to discuss and reflect on issues in admissions. Please send all questions or comments to Amy at estersohn.college@gmail.com in advance of the presentation.

Amy used to work as Assistant Director of Admissions at the University of Chicago, where she read over 4,000 applications across 45 states, 6 nations, and 3 US territories, and she has been active in MIT Splash and Learning Unlimited since Bush II was president. She now works as a school teacher.

MIT Admissions Information Session

Chris Peterson

Saturday 2:30 – 3:30 PM, Kirsch Auditorium (32-123)

MIT Undergraduate Admissions Information Sessions cover a variety of topics including academics, campus life and the admissions and financial aid processes.

Chris works as Assistant Director for Talented Outreach at MIT Admissions, where he oversees recruitment and evaluation of students with exceptional academic and technical achievements.

Everything You and Your Kids Should Know About High School Social Life

Alec Lai

Saturday 3:30 – 4:30 PM, Kirsch Auditorium (32-123)

You hear it on TV all the time: a teenager screaming to a parent, "You don't understand what my life is like!" In just an hour, this talk brings insight to not only what high school social life is like, but also new perspectives and innovative solutions to those common social issues. Founded in applied psychology, these creative, yet easy, ideas will assist you in helping your kids the next time they have another incomprehensible teenage social crisis.

Alec Lai (S.B. MIT '13) is a business analyst, professional networker, talent recruiter, innovative educator, and multi-state speaker on applied psychology. Alec strives to bring new insights on how to apply psychology to enhance the day-to-day lives of high school students, adults, and communities.

Works in Progress: How an Incremental Mindset Can Free Us to Grow

Aimee Yermish, Psy.D

Saturday 4:30 – 5:30 PM, Kirsch Auditorium (32-123)

You have it, you don't have it, or maybe you wonder where you put it. No matter what "it" is, it's either there or it's not. There are so many things that we think of as being fixed aspects of the self: intelligence, motivation, executive functioning, empathy, social skills, academic talent, and even disability are all traditionally seen as permanent and immutable. But is that really true? Nope. While genetics may be important, it is not destiny. Adopting an incremental growth perspective can help us work harder, succeed more, and even become more intelligent. I will explain how we use this mindset to help kids get unstuck and move towards growth.

Aimee is a clinical psychologist and educational therapist in private practice. She works primarily with clients who manifest giftedness or multiple exceptionality, offering a wide variety of services, including assessment, therapy, coaching/mentoring, and consultation. Find her on the web at <http://www.davincilearning.org>.

ESP and Learning Unlimited: Behind the Scenes

Jordan Moldow

Sunday 10:30 – 11:30 AM, Rm. 32-141

Splash doesn't just run itself! Directors and a few dozen other admins, all of us volunteers and full-time college students, put in a lot of hard work to make this program run. And ESP runs many other programs throughout the year. How does a group of 30 full-time college students manage all of this, and why do we do it, anyway? MIT Splash isn't alone in the world. There are about a dozen other Splash-like programs around the country. This community of Splashes is supported by Learning Unlimited, a non-profit volunteer organization of Splash leaders. How do we use our spare time to plant the seeds for new Splashes? Come find out the answers to all your questions, and learn some things about our behind-the-scenes operations that you may not have even considered! This session will be part interactive, part presentation, and part Q&A.

Jordan recently graduated from MIT with degrees in Theoretical Mathematics and Computer Science and Engineering and is a veteran of the ESP admin team. He currently works as a software engineer for Box (in California), and volunteers as the web team leader for Learning Unlimited.

How to Motivate Your Kids

Alec Lai

Sunday 10:30 – 11:30 AM, Kirsch Auditorium (32-123)

Let's face it: sometimes it's hard to motivate your kids to do what you think is best, whether it be cleaning their rooms, eating healthy or giving a tough challenge a second try. This talk synthesizes research from a variety of fields – including business management, applied psychology, linguistics, and even ethical psychology – to present new theories and practices that will help.

Alec Lai (S.B. MIT '13) is a business analyst, professional networker, talent recruiter, innovative educator, and multi-state speaker on applied psychology. Alec strives to bring new insights on how to apply psychology to enhance the day-to-day lives of high school students, adults, and communities.

Non-linear Thinking in a Linear World

Josh Shaine

Sunday 11:30 – 12:30 AM, Kirsch Auditorium (32-123)

Does doing one thing at a time drive you batty? Do people frequently tell you to pay attention or to 'stay on topic?' Do you think in pictures instead of words? Does the whole "You have to do it in the right order" concept bother you? Join us for an exploration of the How's and Why's of non-linear thinking. We'll talk about how to recognize and develop strengths, not just how to 'fit in.'

Josh has contributed to ESP programs for more than 35 years. He works as a teacher, tutor and educational consultant for families and schools, and coordinates a conference series on nurturance of highly gifted children called Beyond IQ (www.giftedconferenceplanners.org). You can email him at josh@giftedconferenceplanners.org.

Heart Rhythm Meditation for Parents

Robin Goldberg

Sunday 11:30 – 12:30 AM, Rm. 32-141

Parenting teens has been described as one long game of 'Chicken,' with parents needing to make so many choices: how much to protect and how much freedom to grant, how much to guide and how many mistakes to allow a child to make, when to let go and when to insist, how to distribute the limited resources of time and money within a family. A parent has to use their mind, heart and gut to make these choices and then create a safe, peaceful atmosphere in the home to carry them out. Daily meditation can help with all of these challenges, so come learn more, experience this style of meditation and see if Heart Rhythm Meditation can help you be the best parent you can be.

Robin is a parent, community health center dentist, parenting coach and certified Heart Rhythm Meditation Instructor, <https://iamheart.org/>. She recently completed an intensive two year meditation training, lives in New Haven, CT and is available for cyber coaching through SchoolSuccessSolutions@gmail.com.

Movies

Dead Poets Society

Directed by Peter Weir. With Robin Williams, Robert Sean Leonard, Ethan Hawke.

Saturday 7:30 – 9:00 PM on the big screen in Kirsch Auditorium (32-123)

"Oh Captain my Captain!"

English teacher John Keating inspires his students to love poetry and to seize the day.

The Finland Phenomenon

Documentary filmmaker Bob Compton, Harvard researcher Dr. Tony Wagner

Sunday 2:30 – 3:30 PM on the big screen in Kirsch Auditorium (32-123)

Finland's education system has ranked among the best in the world for more than a decade. The puzzle is, why Finland? In this 60-minute documentary, Dr. Tony Wagner guides the viewer through an inside look at the surprising factors accounting for Finland's excellence in education.

Sample Splash Classes

Spectrograms: What Does Sound Look Like?

Chelsea V. '15

Saturday 11:30 – 12:30 in Rm. 32-141

What is sound? How do our ears hear the information in sound and send it to our brain to be processed into language? And how might we teach a computer to do the same thing? We'll investigate all of this by diving into phonology and phonetics, the study of the audible components of language. In the first half, we'll talk about all of the different sounds that human languages can use, in English and beyond. In the second half, we'll look at patterns in sounds by converting them into pictures called "spectrograms". With this tool at our disposal, we can actually think about how both computer systems and human brains might tackle the problem of speech recognition. Come learn what you never knew you never knew about sounds!

Chelsea is an MIT senior who gets distracted easily: a former biologist, she now studies computer science and math, and will be presenting a class to you today about linguistics. She enjoys talking about Turing machines, coding educational chemistry games, and identifying plants and insects.

Hacking Flavor

Abby Noyce, Ph.D

Saturday 1:30 – 2:30 in Rm. 32-141

Why do some things taste good and some things taste bad? Why are all the delicious things "bad for you"? How does your brain know what food tastes like? Why are some people picky about tastes while others aren't? Can you change the way your taste buds work? (Hint: Yes!) In this class, we'll learn about how the sense of taste works, from your tongue and nose to your brain.

Abby is an ESP alumna and a neuroscience researcher at Boston University, where she studies human attention and memory. Ask her about knitting, transportation, community structures, and unusual educational trajectories.

Cyberespionage

Benjamin T. '16

Saturday 2:30 – 3:30 in Rm. 32-141

What happens when governments get into the business of computer hacking? Back in the good old days, viruses were written by criminals out to steal your money. Nowadays, we can do more interesting things—like sabotaging a nuclear enrichment facility, for example, or spying on an entire country's private email messages. In this class, you'll hear about recent break-ins on the international stage while learning a bit about the everyday systems that keep us safe and secure on the Internet.

Benjamin is a junior at MIT studying computer science, and volunteers with ESP in his free time. He first learned about computer security when he attended Splash in eighth grade.

Democracy

Ziv S. '16

Saturday 3:30 – 4:30 in Rm. 32-141

Having a fair election with two candidates is pretty simple: everyone votes for their favorite candidate and whoever gets the most votes wins. However, as anyone who was around for the presidential elections in 2000 (or 1912... or 1860) will tell you, things get complicated with three or more candidates. It's sometimes the case that you should vote for a candidate you think is likely to win instead of a fringe candidate you agree with more. We can think of different voting systems that try to get around this and other problems, but as we'll explore in class, no voting system avoids all potential flaws. You might ask: is there a "perfect" voting system out there? Actually, it turns out there is one. It's called a dictatorship. And unless you have an infinite number of voters, no other system is "perfect". Come find out why!

*Ziv is a junior at MIT majoring in mathematics. He likes math and so can you!
(In case it isn't obvious, "Democracy" is a math class).*

Black Holes, Singularities, and the Event Horizon: A Journey into the Abyss

Michael Shaw, Ph.D

Saturday 4:30 – 5:30 in Rm. 32-141

We're going to dive into the most massive objects in our universe—billions of times the mass of the sun. (Note: we won't actually dive into a black hole—it's hard to get out). When small stars die, they peter out. When massive stars die, they explode in supernovas, and what's left is a black hole, a singularity of mass so dense that even light is trapped behind. We'll tour a few black holes and study their effect on our daily lives. We'll even bring in a sporting interest and see how Stephen Hawking lost a bet on black holes, and how it related to the ultimate demise and even death of these most mysterious of objects. Be ready to open your minds, to be bent by the curvature of spacetime, and lose yourself in the fun and beauty of the most amazing objects in the sky.

Michael is an MIT alum who served as the Chair of ESP from 2003 to 2006. He earned his PhD in physics at Stanford, where his research focused on the astrophysics of blazars. He now works as a data scientist, studying how big data can help us all eat better.