



Anemone

The Children's School of Science Newsletter

Summer 2018

CSS SCHEDULE OF EVENTS SUMMER 2018

Sessions A & AB Begin
Monday – July 2

Back-to-School Night
Tuesday – July 3
6 p.m.

School Closed
Wednesday – July 4

Woods Hole Fourth of July Parade
Wednesday – July 4
12 p.m.

Book Club Meeting
Monday – July 9, see page 3

Open Board Meeting
Wednesday – July 18
7 p.m.

CSS Volunteer Party
Location TBD
Thursday – July 19
8:30 p.m.

Open House End of Session A
Friday – July 20
Last 15 minutes of each class

Session B Begins
Monday – July 23

Back-to-School Night
Tuesday – July 24
6 p.m.

CSS Annual Picnic
Thursday – July 26
Woods Hole Ball Park
5:00 p.m.

CSS Annual Meeting
Monday – August 6
7:30 p.m.

Open House
Wednesday – August 9
5 p.m.

End of Sessions B & AB
Thursday – August 10

To keep up with current events throughout the summer and reminisce with others about CSS over the winter, be sure to like us on Facebook.



We're almost there! Another summer session at the Children's School of Science is right around the corner. Soon we will be re-connecting with friends at various spots in the schoolyard, whether it's romping in the sand on the playground, dribbling to the hoop on the basketball court, dealing cards at a picnic table in the shade, chatting around the bike racks, or simply lounging in the sun on the porch.

Beyond catching up with old friends, we each have our own additional reasons for looking forward to summer. For the youngest children, it's about being able to finally enroll in *Seashore Life* after years of watching older siblings and friends heading out to the dock with their nets. Pre-teens can't wait to go catch fish in *Ichthyology*, bugs in *Entomology*, or great shots in *Intro to Photography*. Teens are now ready for the most advanced courses: *Robotics and ROVs*, *Advanced Marine Biology* (aka *Snorkeling!*), and *Film Photography* — courses that, upon completion, will qualify many of them as "lifers." And some of the most-dedicated young adults are finally able to be Assistants — a station in life that seemed so far off as a beginning student!

Parents are similarly eager to get re-acquainted with the joy of wading in a marsh on a sunny summer day as a field trip chaperone, or the thrill (yes, admit it!) of ringing the schoolhouse bell as a desk attendant. Teachers look forward to leaving behind their usual classroom routine to get outside and share with children firsthand the wonders of the natural world. Even Administrative Officers, Members of the Board, and volunteer Committee Chairs — who still have lots to do to ensure that this summer will go as smoothly as always! — are anticipating the pleasure of working together to support and enhance this long-standing and much-loved institution.

We each come to CSS in the summer with established plans, expectations, and traditions, yet some of the most important and lasting memories come from the unexpected — welcoming an inexperienced family at Open House, identifying an uncommon species of cnidarian (you'll learn!), enrolling in an extension class, joining our new summer reading program (*see page 3*), or even taking the step to volunteer for a Standing Committee. This summer, I invite you to open yourself up to such opportunities: come early to the schoolhouse, pocket your smart phone, invite someone out for coffee or ice cream, or join in a game on the playground.

Can't wait to see you soon in the schoolyard!

Mark Borsuk
President of the Board of Directors



CSS Welcomes New Teachers

CSS ADMINISTRATIVE OFFICERS 2018

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Assistant Administrator

Aaron Sloboda

Curriculum Chairs

Karen Dell
Christine Field

Registrar

Crickett Warner

Teaching Assistants Chair

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Website and Facebook Administrator

Aaron Sloboda

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Debi Laster

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Jackie Stephen
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Charlotte Emans Moore

Entrance Desk

Ellie Armstrong

Extension Classes

Charity Gray
Susan Laster

Hospitality

Erin Meyer
Elizabeth Smylie

Newsletter

Naomi Fraenkel Altschul

Sustaining Fund

Mark Borsuk
Kitty Brown
Jackie Stephen
Becky Lash
Gideon Moore

Ways and Means Committee

Becky Connors
Gail Diamond
Emily Yang



Uriah Crane is excited to be joining CSS's faculty this summer as the Botany teacher in Session A. Uriah is a passionate plant lover and is an active member of the Gowanus Canal Conservancy Tree Network in his homebase of Brooklyn, NY. While the bulk of his experience has been in urban farming and cultivation, he is familiar with the Cape's ecology after working with Botanica Fine Gardens in past summers. Uriah has extensive knowledge of compost systems, edible plants and plant identification. He volunteers his time with grassroots urban ecology efforts in Brooklyn, focusing his efforts on city tree care. His hobbies include urban foraging, art, collecting curios and getting out

of the city into nature whenever possible! He studied industrial and manufacturing engineering in Dayton, OH.



Jack Cummings

I'm Jack, a CSS lifer and assistant turned Seashore Life teacher. I earned a degree in marine science from NC State University and am currently a graduate student in geospatial analytics. In my free time I enjoy sailing, fishing and watching college sports. I'm excited for a great summer of Science School!



Molly Hester is an elementary school teacher 180 days of the year and an ocean enthusiast every single day. Molly will be joining the Children's School of Science for the first time this year. Prior to embarking on her professional journey as an educator, Molly graduated with honors from Stonehill College in 2016, having double majored in Elementary Education and American Studies. During the past two years, Molly has gained a variety of experiences through managing classes from the second grade to the fourth. Molly is passionate about engaging her students and uses hands-on activity-based learning as the foundation of her teaching style. Having grown up on the edge of the water,

Molly looks forward to combining her love of education with her love of the seashore in order to make the Seashore Life class as educational as it is enjoyable!



Staci Jasin has educational backgrounds in geology, environmental sciences, education, and landscape architecture. She loves to integrate these fields and teach kids about the wonders of the natural world and stewardship. Staci moved to the Cape recently with her family, but is not a stranger to Woods Hole. She was a research assistant in the Biology Department at Woods Hole Oceanographic Institute following her undergraduate degree from the University of Pennsylvania. Her fieldwork experience includes watershed restoration projects in Vancouver Island and marine mammal surveys in the Bahamas. For many years following her immersive experiences in the

field, she taught and was in leadership positions at an independent K-12 school in Lancaster, Pennsylvania. Her current work as a landscape designer focuses largely on healing spaces and school consultation and planning to best integrate outdoor learning spaces into curriculums and pedagogy. When she's at home with her family, you'll find her busy in the garden, practicing yoga, and cooking — and exploring the woods, ponds, and fields with her two young children.



Sophia Spector

As a child and young adult Sophia could not get enough of Science School. She was a lifer, runner, and assistant and is very excited to return as a Sea Shore Life teacher this year. After graduating from Mount Holyoke College, she returned to New York City and became an English as a New Language teacher at P.S. 86 in Kingsbridge Heights in the Bronx. Sophia is thrilled to rejoin the Woods Hole community and guide young scientists as they explore the sea.

Consider Being a Science School Assistant



Newsletter Contributors

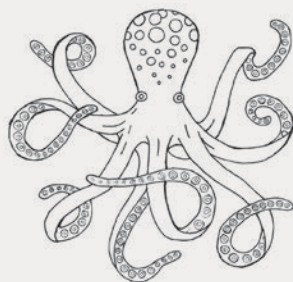
Rebecca Lash, Mark Borsuk, Diane Smith, Roger Sloboda, Aquinnah Todd, Jim Liljestrand, Zoe Smith, Megan Zottoli, Christine Field, Karen Dell, Apple Stephen, Emily Yang, Gail Diamond, Doug Jones, Virginia Land McGuire, Jeannie Altschul, Amelia Altschul, Jim Altschul.

Special thanks to the New England Aquarium for the turtle photos.

Summer Extension Classes

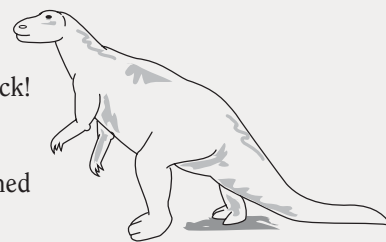
Don't forget to watch for information on this year's Extension Classes. We'll have walks in the woods, boat rides and hands-on projects for the whole family. Check the CSS notice board, CSS website, or our Facebook page.

Book Club



This year we are resurrecting the CSS book club, twice! The first book of the summer will be "The Sixth Extinction" by Elizabeth Kolbert. We will meet at the home of Tina Burger on July 9 at 7:00 pm to discuss. The second meeting will be during the CSS extension class period when we will cover "The Soul of an Octopus" by Sy Montgomery.

Location and date TBD. Both events will be pot luck! RSVP to Naomi Fraenkel Altschul (nrfraenkel@gmail.com) for address and details. All CSS friends are welcome whether you've finished the book or not.



CSS Assistants 2019

Candidates will apply this summer for 2019 positions and must be 16 years old by summer of hiring. Keep an eye on the kiosk for details and interview sign up times. Applications must be filed with Apple Stephen along with letters of recommendation by December 1, 2018 for consideration. Apple may be reached as astephen@partners.org and (617) 335-9380. Assistants work all six weeks of Science School and are assigned to two classes per session.

“I didn’t know that sea turtles lived on Cape Cod.”

by Rebecca Lash

That’s what people often say when I tell them about the work I do as a regular volunteer at the New England Aquarium Sea Turtle Hospital, part of the Rescue and Rehab Department at the Animal Care Center in Quincy, MA.

Sea turtles can’t be said to live *on* Cape Cod, but are found in the surrounding waters. Of the world’s seven sea turtle species, four of them — the Kemp’s Ridley, Loggerhead, Green Turtle and Leatherback - visit our area. (The other three species are the Hawksbill, Olive Ridley and Flatback.)

All sea turtles, as reptiles, are ectothermic — “cold-blooded” — and inhabit warm tropical and temperate oceans, although the Leatherback is in a taxonomic family of its own and has physiological and anatomical traits that enable it to regulate its temperature somewhat and can tolerate colder water.

Ridleys, Loggerheads and Green turtles come into Cape Cod Bay as the summer water temperatures approach 70°, but many never find their way back out into the Atlantic before water temperatures start to drop in the fall. They are trapped by geography, by the arm and hook of Cape Cod. These turtles are part of a regular stranding event that sees hundreds of them washing up on beaches of Cape Cod Bay in the fall. The majority of them are Kemp’s Ridleys, the most critically endangered of the world’s sea turtle species. As fall and winter approach, the sea turtles that are trapped in the bay become hypothermic — “cold-stunned” — as temperatures drop. Winds and waves from Nor’easters and from the northwest winds that follow cold fronts wash the turtles right up onto the beaches, where many are found and rescued by a well-organized army of staff and volunteers from Mass Audubon’s Wellfleet Bay Wildlife Sanctuary. During November and December, the height of the stranding season, volunteers patrol the beaches between the towns of Dennis and Truro, where most of the turtles are found. Patrols are at high tides, no matter the time of day or night, or the weather conditions, which can be below freezing. It’s important to rescue the turtles off the beaches as soon as possible to minimize exposure to freezing temperatures.

The turtles are taken to the Sanctuary’s Nature Center building to be assessed, and turtles that are found alive are settled into banana boxes and driven to Quincy by members of the team of dedicated volunteers. The rescue phase for these turtles is complete. Now the rehab and recovery begins.

Once the turtles reach the turtle hospital, the Rescue and Rehab team brings them inside, lines the boxes up



in the hallway, and starts setting up folders with data and record sheets. Each turtle is photographed and assigned an identification number, which is painted on the carapace and is also written on a flipper bracelet.

As soon as possible, each turtle goes into a shallow pool of 55° freshwater where it is watched attentively by a volunteer or intern who takes notes about its breathing (the first breath is always a good sign!), its flipper use, its buoyancy, and general behaviors. This first swim can be crucial to getting a turtle moving and a heartbeat going. A clinical exam is also part of an incoming turtle’s first hours at the facility. Clinicians and staff biologists check for wounds, bruising, and damaged shells. NEAq veterinarians are summoned for “vet checks”, consults, diagnoses, treatments and treatment plans. Each turtle is weighed and measured, its heartbeat is monitored,

Its internal temperature is taken. Blood samples are taken and fluids administered. Each turtle gets radiographs to check for internal injuries and infections.

Before the day is over, the new turtle patients are “tucked” into a towel-lined box and placed in a 55° holding room for the night. And, yes, they are just fine overnight out of the water. The following day brings more swim time, this time in a 60° pool. Observers take notes, watch for any turtle that may be in distress, and help make sure that each turtle gets out to its clinical exams, meds and treatments before being returned to the pool.

A turtle spends its second night in a 60° holding room, and the next day in a 65° pool. Each day, ambient and water temperature are increased by five degrees until they reach 75°. Water salinity is gradually increased as well. The need to be warmed up slowly is to avoid physiological issues that would hamper recovery or lead to death.

There have been times when over 100 turtles have been rescued from the beaches and transported from Wellfleet to Quincy in a single day. There have been as many as 300 turtles in the facility at once. You'd think it would be chaos, but it isn't. Thanks to the skills of the Rescue Department's well-organized senior and seasonal staff, there is smooth-running order in the hive of activity.

Once we move into January and no more live turtles are being brought in from the beaches, the turtle hospital settles into the routine of what can be months of rehabilitation for these turtles.

A typical day at "Rescue" starts early. There is a group of us — a team for each day of the week - who are regular volunteers. We start work at 8:00 and jump right in to the morning tasks. We take the water temperatures of the three large and four smaller pools and record them on a datasheet. Water samples from each pool are run down to the lab, all the pools are siphoned or vacuumed of poop and bits of uneaten food (turtles are untidy eaters), the filter socks that catch a lot of the uneaten food bits are hosed down and cleaned, pool edges are wiped down, pool dividers and scuppers are scrubbed, clinic tables and turtle crates are readied for patients, herring and squid are chopped and weighed in the kitchen for feeding, the kitchen is given a quick clean, and someone gets the data sheets ready that are used to record how much each turtle eats as well as behavior and swim notes. We assist the clinicians by pulling turtles from the pools and returning them after exams and treatments, holding them during the exams, running blood samples down to the lab or delivering a turtle for radiographs. We do loads of laundry, mostly towels. Whenever we have a spare second, we start a load or fold and put away. We start feeding the turtles, hiding vitamins and meds into pieces of herring and squid. We worry about turtles that aren't eating well and try different strategies to encourage them to eat.

And we do all of this before lunch.

After lunch? Finish feeding, enter data, and do lots of cleaning and scrubbing: the pools (carefully dealing with all the turtles that are in the way), the food-prep kitchen, the clinic, more filter socks, used turtle boxes, the office, all floors and hallways. And of course, laundry.

What are the rewards of all this hard work, besides being part of a wonderful team and having a sense of accomplishment? It is seeing turtles regain health, grow and recover until they are able to be released. Saving the world one sea turtle at a time.

Check out some resources to find out more about the sea turtles that strand on Cape Cod and the people involved in their rescue and rehab.

Find out the answers to questions like:

- Why and how exactly do sea turtles come this far north?
- How old and how big are the turtles that are rescued from Cape Cod beaches?
- Where are the healthy sea turtles released back to the ocean?
- What do sea turtles eat in the wild?
- How much does a sea turtle eat?
- How long can a sea turtle hold its breath?
- Where do different sea turtle species live in the world?
- Why are all sea turtle species endangered?
- Why is the Kemp's Ridley the most critically endangered of all?
- How can the New England Aquarium take care of all the turtles it gets at once? (We don't.)

Longtime teacher Becky Lash will be taking a sabbatical for Summer 2018 but we are thrilled she will be able to visit and mentor in other classrooms at CSS.

<https://www.massaudubon.org/get-outdoors/wildlife-sanctuaries/wellfleet-bay/about/our-conservation-work/sea-turtles>

<http://www.neaq.org/blog/update-sea-turtle-rescue-season/>

<http://www.neaq.org/blog/turtle-fly-holidays/>

<http://www.neaq.org/blog/turtles-fly-part-2/>

<http://rescue.neaq.org/2014/11/>

<https://www.savingseaturtlesmovie.com>



(Google) Hanging Out with Aquinnah Todd and Jim Liljestrand

by Jeannie and Amelia Altschul
(with some help from their mother)



Blessed by the technology gods and some good luck on Google Hangouts, we interviewed Aquinnah Todd and Jim Liljestrand on April 22. Aquinnah spends the school year in northern California, and Jim was in beautiful Woods Hole, where spring has finally sprung, after spending time in Cape Town, South Africa. Aquinnah is

this year's CSS Runner, and Jim is a former CSS board member who has done more than a bit of everything at CSS. We chose to interview Aquinnah and Jim because they represent different elements of the CSS community and both spend their time making CSS the special and wonderful place we know it to be. We asked Aquinnah and Jim a series of Woods Hole-related questions so that we could all get to know each other better before the summer begins. We included their pictures so that if you don't know them yet, you can say hi when you see them around town. Here are some highlights from our conversation which makes us very excited about the summer ahead.

Tell us about a special CSS memory.

Jim told us about how much fun he had on Science School field trips with his daughters' classes. His special memory was going on an outing with a class of seven year-olds, who, in their first week of CSS, were describing fiddler crabs in great detail (two adjectives, at least!). Aquinnah, a CSS lifer, told us about a barbeque held at the completion of her Ichthyology class where they cooked many different kinds of fish, after studying them.

We then asked Jim and Aquinnah about favorite Woods Hole things. Here's what they said:

What is your favorite place in Woods Hole?

Jim, without hesitation, told us that his favorite location was Stoney Beach. Aquinnah can be found in Pie in the Sky or the shady hill across from it.

What is your favorite Woods Hole bird?

Jim enjoys watching the seagulls drop their prey on the rocks and devour their victims. Aquinnah is a big fan of the ospreys. Jim told about the nest of ospreys at the yacht club which grow before your eyes as the summer progresses.

If you could choose any Woods Hole snack for CSS Open House, what would it be?

Aquinnah chose a classic, Pie in the Sky popovers. Jim said salty triscuits were always a nice break from his usual less salty diet. Open House was seen by all as a chance to stuff oneself with special foods you won't get at home. Overall, there was also great respect for Pie in the Sky scones and Cape Cod potato chips.

We then asked Jim and Aquinnah to tell us something about themselves that we might not find out on our own.

Jim is the defending champion of the over-75 category in the Falmouth Road Race, which he has run 23 times. Aquinnah plays basketball and soccer in California, and has recently started sailing in Woods Hole.

We concluded the interview by asking whether Jim and Aquinnah had any goals they are working towards this summer?

Aquinnah would like to swim every day, but touching the ocean daily would also count. Jim wants to run the Woods Hole hills every day to stay fast — and maybe get even faster — for this year's race. He reported that part of the joy of running in Woods Hole is bumping into so many of the CSS gang while you are doing it.

We thought that the best part of the conversation revolved around wonderful Woods Hole traditions, some of which we'd never heard of. We know everyone's favorite Tuesday night activity – Folksinging – very well, but interviewing Jim and Aquinnah made us long for summer even more. We also enjoy swimming in the bioluminescence after dark at Gansett Beach and watching the sunset from Stoney Beach or the golf course, but hadn't considered sledding down the hills in the summer time on blocks of ice bought at the liquor store. Jumping off the drawbridge is a new goal that we hope to accomplish this summer.

**Editor's note: Don't let my kids have all of the fun! Have an idea for an article for next year's newsletter? Bring your pitch to Stoney Beach after 4:00 pm on any weekday and pitch it to me. I wear a black bathing suit;>*



CSS 101: A Guide for Families

Welcome to CSS! Whether this is your family's first CSS summer or 104th, here is a cheat sheet of this summer's activities for you to preview. Mark your calendars and prepare to get the full Science School experience.

June 28 and 29: Unpacking the School

Session A/AB teachers and all assistants will be setting up the schoolhouse for opening day. If this is your first summer, please feel free to stop by for a brief visit to introduce yourself to Doug Jones, CSS Director and Aaron Sloboda, CSS Assistant Director!

July 2: First Day of Classes Sessions A and AB

Make sure to send your child wearing closed toed shoes which can get wet, with sunscreen applied. A hat and a water bottle are optional but helpful. At the beginning of each class, Doug will address all families in the schoolyard. Parents will get important information such as parking, pick up and drop off. Plan ahead — parking is not available on School Street. Please walk to the schoolyard if you can. Otherwise, park at a metered spot to gather in the schoolyard.

July 3, 6-7pm: Back to School Night Session A

This is a chance for parents and families to meet their child's teacher and teaching assistants in the classroom, hear about what your child will learn in class and the fun activities and field trips they will experience. The hour is broken up into four 15-minute periods (8:30am classes will meet 6:00-6:10pm, 10:15am classes will meet 6:15-6:25pm, 12:00pm classes will meet 6:30-6:40pm and 1:45pm classes meet 6:45-6:55pm). There are light refreshments served in the



schoolyard courtesy of the CSS Hospitality Committee. Kids and families can socialize in the schoolyard. The CSS Store is open if you'd like to purchase a CSS t-shirt, bag, mug, rain jacket, artwork or other CSS items! WHOI opens up their School Street Parking Lot to CSS for this event.

July 4, 12:00pm: Woods Hole Fourth of July Parade

Come cheer on the 2017 CSS Assistants as they march in the parade! It is always a fun surprise to see how they've dressed up to celebrate and the humor of the local laboratory participants is an added bonus!

July 19, 5:30-7:30pm: CSS Volunteer Party

Location to be confirmed. CSS is a remarkable success story relying on close to 100 volunteers to create the fun summer experience for our kids each year. If you have volunteered or sign up to volunteer for this summer's session, you will be invited to this party to kick back and relax.

July 20: Session A Open House

Pop in for the last 15 minutes of each class. This is the

second time parents and families are invited to their child's classroom to see what he/she has been up to during the past three weeks. View classroom aquaria, art projects, and experiments. Parking is not available on School Street. Please plan accordingly.

July 24, 6-7pm: Back to School Night Session B

This is a chance for parents and families to meet your child's teacher and science assistants in the classroom, and hear about what your child will learn in class and the fun activities and field trips they will experience. The hour is broken up into four 15-minute periods (8:30am classes will meet 6:00-6:10pm, 10:15am classes will meet 6:15-6:25pm, 12:00pm classes will meet 6:30-6:40pm and 1:45pm classes meet 6:45-6:55pm). There are light refreshments served in the schoolyard courtesy of the CSS Hospitality Committee. Kids and families can socialize in the schoolyard. WHOI opens up their School Street Parking Lot to CSS for this event.

July 26, 5:00-7:00pm:

CSS Annual Picnic

Held at Woods Hole Taft Ball Park off of Millfield Street. The Assistants are the hosts for this event. Bring your own picnic dinner, relax and have fun as the Assistants organize games for the kids. Brownies and watermelon are provided. It is a fun evening of fresh air, games and fun! You will find out what "uca uca limulus" really means. WHOI opens up their School Street Parking Lot to CSS for this event.

August 6, 7:30-9pm: CSS Annual Meeting

As much a party as a meeting, this is a special evening. Will be held at a location to be confirmed. Featuring reports from CSS committees, recognition of our teachers, assistants and student lifer awards, end of year slide show and lots and lots of refreshments. The children are welcome and this is a great opportunity for them to see the full spectrum of Science School offerings in one night.

August 8, 5-6pm: Open House

Session B and AB

This is a second time parents and families are invited to your child's classroom to see what he/she has been up to during the past three weeks. View classroom aquaria, art projects and experiments. The hour is broken up into four 15-minute periods (8:30am classes will meet 5:00-5:10pm, 10:15am classes will meet 5:15-5:25pm, 12:00pm classes will meet 5:30-5:40pm and 1:45pm classes meet 5:45-5:55pm). There are light refreshments served in the schoolyard courtesy of the CSS Hospitality Committee. Kids and families can socialize in the schoolyard. Last sale day of the season for the CSS Store! WHOI opens up their School Street Parking Lot to CSS for this event.



Children's School of Science
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Woods Hole, MA 02543

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Summer 2018 Anemone: CSS Newsletter

Ways and Means: T-Shirts and So Much More!

The Ways and Means Committee is looking forward to another fun and productive summer! This year we will be selling tank tops in addition to our other fabulous merchandise!

The CSS merchandise opportunities:

July 3 – 6-7pm

Back to School Night Session A

July 20 – 6-7pm

Open House Session B

July 24 – 6-7pm

Back to School Night Session B


August 8 – 5-6pm

Open House Session B

We would be thrilled to have *volunteers* for set-up, selling and clean-up at all sales events. Please consider helping support CSS in this way!

If you have any questions, please feel free to direct them my way at
emilyyang@gmail.com



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