

The Eagle Review

SPRING 2016

A PUBLICATION OF SHANGHAI AMERICAN SCHOOL



Following Our
DREAMS



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Cover: When Mrs. Logan Zeman asked her grade 2 students to imagine who they would be when they grew up, her students were transformed into future bio-engineers, veterinarians, and the world's best super hero. Pictured: Ana Sofia, Claire, Hye Min, and Willy. **Above:** Licheng Su, Class '17, and Albert Cho, Class '18, performing during the Chinese New Year celebrations at Pudong campus.

The Eagle Review

Spring 2016



9 DREAMS

What is the stuff that DREAMS are made of? At Shanghai American School it's Design, Research, Engineering, Art, Math, and Science! With this unique curriculum based approach we can achieve our mission and prepare our students for life outside of the classroom.



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A bitterly cold day couldn't deter several of our high school students from delivering holiday cheer to a group of amazing children at a local Shanghai school.

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Two teams from each campus traveled to the Philippines for the ultimate battle of wits—the annual Academic Bowl tournament. Read about each team's adventure!



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When teachers collaborate, the whole class benefits! Two high school teachers on our Puxi campus created a new project and asked their students to join in.

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DREAMS Bring Dreams to Life

BY RICHARD W. MUELLER, HEAD OF SCHOOL

From the
Head of School

Dreams. Everyone has them. Martin Luther King had a dream; our students have dreams; and as parents and educators, we of course have dreams for our students and our own children. These dreams are the hopes we have for all young people in our care.

At Shanghai American School our students' dreams can be bigger and unique because they also have DREAMS. This is our shorthand way of referring to an inter-disciplinary approach to learning encompassing *Design, Research, Engineering, Arts, Math, and Science*. DREAMS come to life within the walls of our school.

The 2015-16 school year has been an exciting one for students. The Performing Arts Center in Pudong opened and has already hosted several wonderful concerts and has brought together students from all grade levels and throughout Asia to experience the power of performing on a stage. Several newly renovated spaces have also become available this year. We have a new teaching kitchen where our Puxi elementary students are baking cookies, cupcakes, and healthy snacks. Our Pudong middle and high school students are creating 3D models in the Design Studio. Our Pudong elementary students are making solar-powered windmills as well as planning and designing ways to "catch a fox" (actually a teacher, but you can read more about that on page 38) in the DREAMS lab. These activities have been integrated into classroom projects and include many of the learning goals we value—*Design, Research, Engineering, Arts, Math, and Science*.

The new spaces our students are learning in today are the types of spaces they will increasingly encounter when they matriculate to top colleges and universities around the world. Our approach will help secure the future for our students.

The world class education provided at Shanghai American School is not a secret to anyone who knows our school. We have been committed to providing exceptional learning from the day we opened our doors. This commitment to the community continues today and is reflected in the modern facilities we highlight within this issue.

We are excited that next year we will open a learning environment for interdisciplinary and innovative education: the *Center for Inquiry and Design* in the Puxi High School. The Center will include an interdisciplinary science laboratory and a "makerspace" which is a facility providing multi-faceted opportunities to design and create. It will also include a state-of-the-art space to host our Innovation Institute. These dynamic applications of learning and hands on creating and making will take our students to the next level and ensure that Shanghai American School remains among the best.

Similarly, a redesigned Early Childhood Education wing in the Pudong Elementary School will create bright new spaces facing our very green outdoor "Eagles' Nest" for collaborative and creative learning.

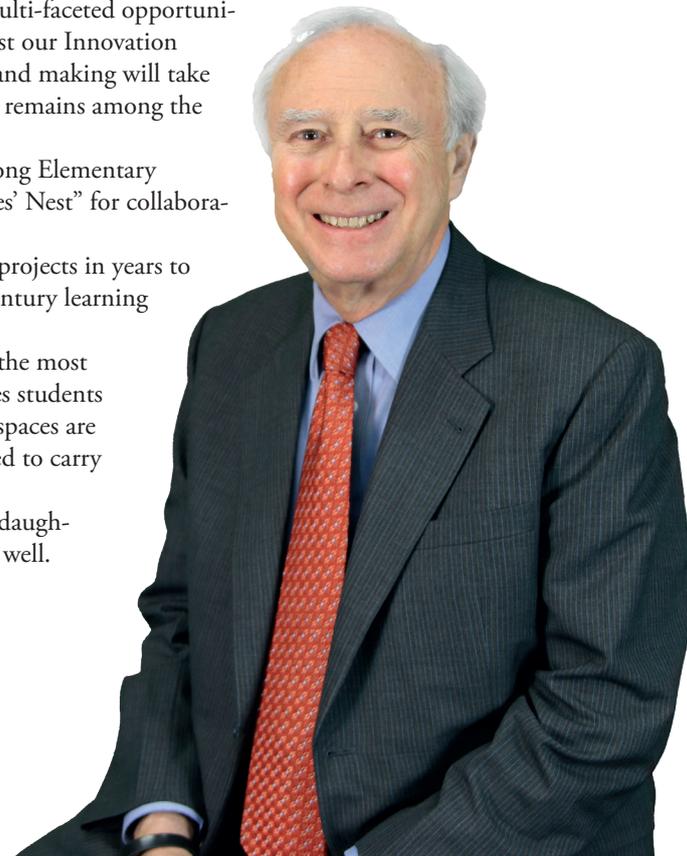
We are not solely thinking about next year. We are also planning for projects in years to come. A full redesign of our libraries is already underway to create 21st century learning hubs for both students and the community.

We believe these new flexible and adaptable learning spaces provide the most innovative and effective tools for an age-appropriate education that guides students through a learning process of inquiring, designing, and "making." These spaces are allowing our students to dream inside the school so they are well equipped to carry on in the world outside in coming years.

I encourage you to learn more from our teachers and your sons and daughters as our approach to learning evolves and our learning spaces evolve as well.

I am excited to see what our amazing students will do next as they continue to dream while using DREAMS to help them soar.

Warm regards,

The Importance of Spaces on Learning

BY ALAN PREIS, DIRECTOR OF TECHNOLOGY

Can the design of instructional spaces really impact the learning that happens in those spaces? *The Third Teacher*, a book about the relationship between space and learning, suggests that a well-designed space can facilitate and transform learning, just as a poorly-designed space can hinder it. In our approach to designing, building, and equipping our spaces for DREAMS, Shanghai American School recognizes the learning that can happen when we think about space in innovative ways.

Makerspaces in many schools focus on the disciplines of science, engineering, and mathematics. Our DREAMS spaces are different in that they support learning across all disciplines. In the last couple of weeks, I've been fortunate to see great examples of this on both campuses. Mr. Jeff Dungan, the elementary school technology coach in Puxi, led elementary students to use iPads to program Sphero robots to create art inspired by the American painter Jackson Pollack (pictures can be found page 16). Mr. Simon Power, the middle school technology coach in Pudong, and Ms. Laura Fishman, a middle school humanities teacher in Pudong, guided students to work with lightboxes to develop narrative animations as part of a project on governance (read more about this on page 26).

At Shanghai American School we have equipped our DREAMS spaces with powerful, engaging, and interactive technologies, from the Sphero robots mentioned above, to 3D printers, vinyl cutters, iPads, and a variety of materials and media. With proper guidance these are not merely used as novel toys, gadgets, or gizmos, but as powerful, engaging tools that drive and transform learning. One of the things that most excites me about our DREAMS spaces is how they allow students to bridge the gap between the digital and physical worlds. A student might envision a three-dimensional object and create and refine their design using 3D design software on a computer, but then use a 3D printer to transform the digital design into something physical and tangible. Another student interested in robotics might build a physical robot, then learn and apply programming languages to enable the robot to solve a complex, real world design challenge. Technology used in this way is not about passively watching something on a screen, but about learning to interact with our world in more engaging, creative ways.

Daniel Pink argues in *A Whole New Mind* that the most difficult problems of the future will likely not be solved by specialists in one particular discipline, but will require transdisciplinary thinkers with multiple perspectives, who can see the big picture and connect ideas from seemingly unrelated areas. Our DREAMS spaces are designed to facilitate this kind of thinking and learning by providing space for the best thinking of different disciplines to come together and cross-pollinate. By providing opportunities for teachers from different areas to collaborate on learning activities, we can help students forge rich connections between these disciplines.

Our students will face unprecedented change during their lifetime. Only ten years ago there was no iPhone or iPad, today's most well-known social networks were either in their infancy or had not been conceived, and the ubiquitous connectivity of everyday life—



with high-speed Internet at work and at home, 4G mobile phone connectivity, and coffeeshop hotspots—did not exist. It would be difficult to overstate the impact that these technologies have had on our work and lives. With the accelerating rate of change in technology development over the next several decades, our students will not only need to be experts at working effectively with today's technologies, but will also need to have the skills to quickly learn how to work with new tools and ideas as they emerge. Given the need to prepare students for this degree of change and uncertainty, we are designing our DREAMS spaces with a variety of technologies and with movable furniture and modular fittings that can be changed to adapt to different learning activities, while also allowing flexibility for the spaces to grow and adapt as new technologies emerge. More importantly, the teaching and learning that takes place in these spaces will help to build a future-adaptive mindset in our students.

When thinking about space, we envision not only physical space, but also the myriad virtual spaces that students use every day to support their learning. As we continue to develop our thinking around technology at SAS, we are giving serious thought to the types of virtual learning environments that will be best for students to learn in, and how to ensure that students and teachers have the knowledge, skills, and dispositions to be effective in those spaces. The use of such digital environments is a critical component supporting our DREAMS spaces.

Perhaps our DREAMS spaces are not simply spaces, but are pathways to enable our students to learn, develop, and excel. I look forward to seeing where these DREAMS lead our students.

New Deputy Head of School for Educational Programs

Emmanuel Bonin has accepted the position of Deputy Head of School for Educational Programs. He will serve as the primary instructional leader uniting efforts on both the Pudong and Puxi campuses, to improve teaching and learning, ensure a comprehensive, coherent and robust curriculum, and promote professional development in line with our current institutional priorities: building educational excellence, building community, and building for the future. He will assume his new role beginning August 1, 2016.

Emmanuel is currently the Academic Director at the International School of Los Angeles. Beginning his career as a history teacher and moving into administrative roles, serving as Campus Director, Department Coordinator of Social Science and now Academic Director, Emmanuel has a strong understanding of what it takes to align curriculum and unite people to do the reflective and meaningful work associated with sustainable change. We are confident that Emmanuel is an extraordinary leader who will guide our

school with wisdom and care in the years to come.

New Board of Trustee Members Appointed

The Board of Trustees would like to announce that Andrew Field and Sue Luh have been appointed to the SAS Board of Trustees. The newly appointed Trustees will assume office immediately and serve until June 2017 with an option to renew for two years upon approval of the Board.

Andrew Field is currently the Associate Dean of Undergraduate Programs at Duke Kunshan University where he is responsible for overseeing, managing and developing the educational programs and supporting faculty. Andrew is also a professor of modern Chinese history. Sue Luh has over twenty years experience in business as a certified public accountant, an investment banker, a CFO and an entrepreneur. Sue has two children in elementary school on the Puxi campus.

Center for Inquiry and Design

Next month we will be converting the second floor of the main high school building on our Puxi campus into a world class learning environment for interdisciplinary and innovative education: *The Center for Inquiry and Design*. The Center will include an interdisciplinary science lab and a “makerspace,” which is a facility that will provide our students with dynamic opportunities to design and create. The Center will also include a state-of-the-art facility to host our Innovation Institute.

The Center will open in Fall of 2016 to serve our high school students and the entire learning community. Shanghai American School will fully fund the creation of this important project through our facilities budget which is intended for just this type of improvement. The School will also be seeking charitable gifts to support both special student learning opportunities and future enhancements and investments in the Center for Inquiry and Design. To learn more about giving, please contact our Advancement Department by calling +86-21-6221-1445, extension 2250, or via email at advancement@saschina.org.

Support Our Edge for Excellence 2016

Our Edge for Excellence is Shanghai American School's annual campaign to raise funding for special initiatives that will improve the experience and education of our students. These initiatives go above and beyond tuition and fees to ensure our students have the edge to succeed, now, and in their futures.

To date we have raised 780,000 RMB toward our 1,705,000 RMB goal to support three schoolwide projects, which embody the School's themes and priorities. Many of our parents, faculty, and staff have already made their gifts. There is still time for you to make your contribution and help us reach our goal by May 20. Please make your gift today and help us continue our tradition of excellence at SAS.

With the funds we raise this year we will enhance our learning environments into Spaces for DREAMS; we will launch the second year of the Excellence in Education Speaker Series; and we will inspire our students by brining Artists in Residence to our campuses. Each project supports our students and our community and has benefits that will impact our entire school. You can read more about these initiatives on our website.

We invite you to give online at www.saschina.org/giving/online-giving/index.asp or to make your gift using the special red envelopes available on campus in the divisional offices, main lobby, and school cashier.

**EXCELLENCE
IN EDUCATION
SPEAKER SERIES**

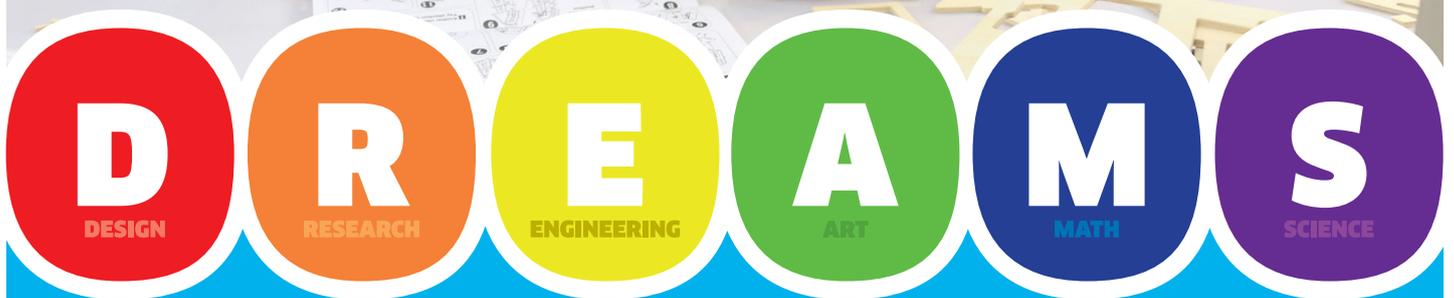
Speaker Series

Our Excellence in Education Speaker Series continues this spring with two exciting community events. All are welcome to attend.

The fourth event in our Excellence in Education Speaker Series, *A Shanghai American School Education: Our past, present, and future, in China*, will be on Saturday, April 16, from 9:30 a.m.-12:30 p.m. It will be a morning symposium featuring key alumni from our history and head of school, Richard W. Mueller, followed by lunch and conversation.

Our final event, *The Value of Music Education*, will be on Thursday, May 19, starting at 7:00 p.m. This will be an evening with award winning Australian conductor and music educator, Dr. Richard Gill. Dr. Gill will use scholarship and humor to address the many values of music education.

Watch for more details coming soon on our website.



Why would anyone want to prepare today's students for the future using the same methods used to prepare students of the past? Modern education needs better tools and different spaces; innovation, critical thinking, hands on learning, and interdisciplinary work require stimulating and interactive teachers, tools, and learning spaces that can grow and adapt to meet the needs of our students. DREAMS (Design, Research, Engineering, Art, Math, and Science) is a curriculum-based and forward-thinking approach to education that was specifically designed by Shanghai American School with the needs of our students in mind.

Last summer, we shared with our community how the curriculum-based approach of STEAM (Science, Technology, Engineering, Art, Math) was informing and guiding education throughout the United States and at SAS. Our administration and faculty have adapted this approach to best fit the needs of our students, and the acronym has transformed into DREAMS. As an independent school we have the freedom to take the best ideas from different educational philosophies and curriculum and adapt them to fit the needs of our

international community. On the surface this might seem like a minor change, but the change was intentional and designed to ensure that our students would be prepared for their future in an increasingly complex global world.

At SAS, we strive to inspire in all students a lifelong passion for learning, a commitment to act with integrity and compassion, and the courage to live their dreams. We know that with DREAMS we can achieve our mission and prepare our students for life outside of the classroom. With the help of your gifts to Our Edge for Excellence, several spaces on each campus have been redesigned or built with DREAMS in mind. These spaces provide the flexible and forward thinking environment that enhances and guides the learning that teachers bring into the classroom.

Throughout this issue you will notice the DREAMS logo included on several articles. The highlighted letters represent the subject matter that was incorporated into the featured classroom project. Get ready to read how SAS has inspired our students' DREAMS!

THE GAME OF T

BY ALYSIA LEE ASP, VISUAL ARTS TEACHER, PUDONG CAMPUS

Visual arts class is not all fun and games—but it can have those things included—as you will see from the project that grade 6 students completed at Shanghai American School, Pudong campus. Countless studies have shown that creativity comes from a place of imagination and play, and it was no surprise that this unit came together easily when our students showed us that they’ve got game! When the middle school visual art teachers set out to create a new clay design unit the first thought was, “What would be fun and motivating to make if we were in grade 6?” What do they do to have fun? Play games, of course! So we began designing this unit in order to teach our students the fundamentals of clay design, but quickly realized how all the elements of DREAMS were integral to almost every aspect of this class project.

DESIGN

Students used the creative design process to create their own unique sculptural games using ceramic clay as the primary medium. They used the main components of game design, which are space, components, mechanics, rules, goals, and a fun factor.

What are these game design components exactly? They are what create the essence of a game, from design to play. Space is the look and the feel of the game. Students had to make sure there was good use of positive and negative space because the games are 3D. Color schemes had to be chosen and appropriate to their game theme. The components are the parts of the game, such as the game board, cards, and game pieces. Mechanics are how the game works with actions, such as turns and other movements. Goals are what players are trying to achieve and rules are how the game is



THEIR DREAMS

played. The fun factor is how the game will appeal to the market audience that the students decided upon. Through this, students learned the concept of market audience and safety rules, such as why certain games can only be played by certain ages.

RESEARCH

Students analyzed games through playing them, discussing them, and assessing them in groups. After they felt they had ascertained what makes a great game, they researched ancient, classical, and modern games from around the world to find ideas that could help them create their own games. They created a two-page layout illustrating their research and sketches for their own game. Part of what they found in their research was required to be part of their final design.

ENGINEERING

After the research was done, it was time to engineer their pieces using clay. Some drew multiple angles of their game and components, while others made mini models with plasticene clay. They worked out issues with gravity, stability, fit, size, and usability. During construction of their games with the clay, they had many small lessons in practical physics, mainly how gravity affects moist clay forms. Some students used 2D and 3D printing techniques for parts of their games in the new Design Studio with the help of Mr. Simon Power, our middle school technology resource facilitator.

ARTS

Students had to focus on using elements of visual art in their work, including form, space, color, and texture. They also learned how to use clay slabs, coils, and pinch pots; and discovered how fun it is to carve, sculpt, and use additive methods in clay building! They also had to learn how to “pitch” their ideas to other groups of student designers for critique and discussion. Students used their literary skills to write game descriptions, objectives, and rules. In the end, they all got a chance to play some of the newly designed games!

MATH

The overall game board had to be 12 inches by 12 inches or less, so students had to figure out how to get their ideas from a sketchbook in to a 3D scaled game while staying in that parameter. In addition, students had to take into account that the clay shrinks about 12% during the entire process from new clay to fired, glazed pieces. Many students also integrated mathematical points systems, rules, and logic into their game design.

SCIENCE

Throughout the process, students learned the basic science of ceramics. Concepts about the clay shrinking, its strength during different stages, chemical reactions, how glaze works, porosity, vitreous substances, and why clay pieces blow up due to expansion in the kiln were all discussed.

In the end, students were incredibly engaged in this Project Based Learning design challenge. Many of their other classroom teachers talked about similar concepts so that students could start to see how the world is really a network of interrelated and overlapping concepts that helps to fuel innovation. From start to finish, students realized that sometimes the fun part of learning is when you are integrating knowledge from many disciplines to make your DREAMS a reality!

CHECK OUT ADDITIONAL
PHOTOS OF THE GRADE 6
STUDENTS DESIGNING THEIR
BOARD GAMES ON THE
FOLLOWING PAGE.





PHOTOS: While on the surface this project might appear trivial, it was not all fun and games. The grade 6 art students spent several weeks dedicated to researching ancient board games and designing their own. They had to show their teachers that their games were not only visually appealing, but logical and marketable to their target audience. **TOP PHOTO:** Ethan Zhu and Troy Cui. **BOTTOM LEFT:** Seyoon Won. **BOTTOM RIGHT:** Mateo Boffi. **PREVIOUS PAGE:** Lindsay Land.



A BREATHTAKING BEAUTY

BY TARA NEFF, VISUAL ARTS TEACHER, PUDONG CAMPUS

Twelve photography students and two faculty members recently traveled to the frozen tundra of Iceland to learn more about photography and further develop their budding skills through what will be for many, a once in a lifetime school trip.

As we climbed down from the massive vehicle with tires that had inflated and deflated as we crossed the frozen terrain, it was overwhelmingly evident that we were not in Shanghai any more. Our off road bump and jostle-a-thon had delivered us within hiking distance of Vatnajökull glacier. After a short hike across a boulder field filled with the remnants of a long ago volcanic eruption, we rounded a corner and had our first close up view of this magnificent glacier. With chunks of glacial ice the size of small rooms strewn about the base each holding varying shades of blue, it was so much more colossal than we could have imagined. Rounding another corner, we came up to a cave. The piercing blue in this area was so much more intense than anything we had ever seen. It was a moment where we become acutely aware of how the term *breathtakingly beautiful* came to be.



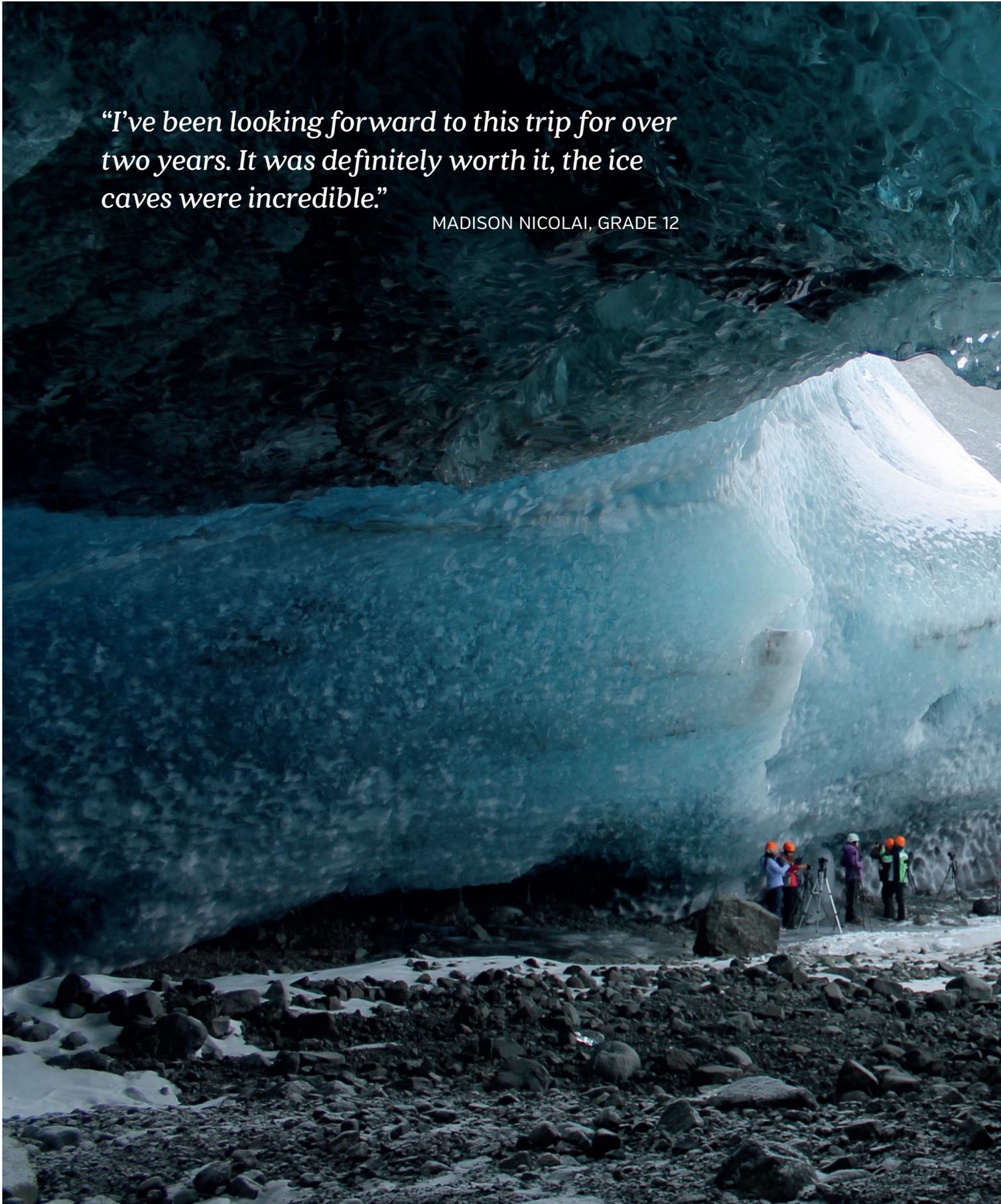
“The roads, bridges, and infrequent road signs were the only indicators that humans had ever touched this serene landscape. The unexploited beauty of the mountains and rivers made a perfect backdrop to contrast my friends profile against.”

YUVAL TZHORI, GRADE 12



“I’ve been looking forward to this trip for over two years. It was definitely worth it, the ice caves were incredible.”

MADISON NICOLAI, GRADE 12









Puxi ES Innovation Hub

BY LOGAN ZEMAN, GRADE 2 TEACHER, PUXI CAMPUS

Inside every child is the ability to dream, the capacity to create, and the power to turn one's ideas into reality. Through a combination of design, craftsmanship, and artistry, students in the elementary school at Shanghai American School are learning by doing. They are using their imaginations to tap into their true potential. The makerspace in the elementary school at our Puxi campus, better known as the Innovation Hub (iHub for short), is becoming a crucial instrument of learning and is becoming as important to education as a library, computer lab, laboratory or studio. In the iHub, 'making' is becoming a part of the way students learn and understand the world around them.

What is a makerspace? Simply put, it is a space designed for making. The "Maker Movement" may seem foreign, but the basis of the philosophy centers on creating. Its proponents argue that creation is as natural as the human instinct to speak or walk. Using a variety of resources, tools, and materials, elementary students at SAS are learning the fundamentals of the design process. They are discovering that their curiosity and inquiries can be answered through hands-on, collaborative exploration.

The iHub is located in the Puxi elementary school near its partner departments—the library and Desktop Lab. Encased in glass windows, this room allows onlookers and passersby to observe the learning taking place within. The iHub is not a quiet space; the squeak of dry erase markers, the hum of drills, the clanking of hammers, and excited chatter can all be heard from the hallway. As an extension of the classroom, teachers are bringing students here to work on art projects, science experiments, math activities, and anything technology or engineer based. Students, teachers, and parents alike are all finding ways to utilize this remarkable learning environment.

Making and tinkering isn't just plain fun, it is also a natural extension of SAS curriculum. New technologies, such as LEGO® Mindstorms®, programmable robotics, 3-D printing, and custom electrical circuits, are among the many resources found in the iHub. Using these resources, in conjunction with recycled materials and hand tools, students are taking discarded products, repurposing them, and giving them a new life. Kindergartners have already experimented with push-pull vehicle designs. Second graders have developed retaining wall models in order to learn the basics of geological erosion. Multiple grade levels have been developing their coding skills using Bee-Bot's and LEGO® robotics. These are some brief examples of the work taking place in the iHub, as students are becoming designers, creative thinkers, and problem solvers. They are taking risks, learning through trial-and-error, and are finding their passions. Learning opportunities in the iHub are influencing them to dream, design, and do.

The Innovation Hub is the "third teacher;" it is a student-centered environment. No matter the student's learning style, whether it is visual, auditory, or tactile, there are possibilities for them to learn and explore in a way that meets their individual needs. By taking styles of learning and personal interests into account, teachers have the opportunity to empower young minds. Inspiring students to try new things and apply their ideas can help them grow as individuals and, in return, help them to contribute to the world and the greater good. The mission of SAS is built around passion, thinking about the world through a lens of integrity and compassion, and living one's dream. The Innovation Hub undoubtedly facilitates these components. As the space grows, students' ability to think, design, and create will grow as well. Come step through the iHub's doors, see what the "Maker Movement" is all about, and visit a space that is shaping young minds and influencing the future!





The Tugboat Challenge

BY KEVIN DAVID, SCIENCE TEACHER, PUDONG CAMPUS

To mark the start of the holiday season, the grade 7 Science and Math Departments teamed up in an interdisciplinary challenge to celebrate creative collaboration in the design process, as well as hone skills in data collection and graphing linear functions. In keeping with the spirit of the season, the activity was dubbed the Candy Cane Tugboat Challenge. Student teams were formed by combining the math and science classes to create mixed groups from each class period. Each team was tasked with designing, fabricating, and racing a small, motorized boat down an aptly decorated red and white striped trough that was four meters long and full of water.

Though the project was seemingly a straightforward mission, the groups were thrown some curve balls. The largest stumbling block for each team was choosing which category they would be entering their designs in. They could choose the Speedboat category, the boat with the fastest time, the Showboat category, the most creatively built boat, or the Work Horse category, the boat that could pull the heaviest mass via a barge. This led to an amazing array of approaches for the build as teams worked through

the design cycle. They brainstormed, planned, created prototypes, built their final versions, and revised their vessels as they discovered weaknesses along the way.

During the creation process, the teams were given fairly broad constraints in terms of materials used. Essentially, any materials they could repurpose from their lockers was acceptable. The only restrictions were that they did have to use recycled foam core sheets, bamboo sticks, and, of course, plenty of hot glue (no middle school design project would be complete without lots of hot glue). Their creativity shone through during this process as they chose a wide variety of materials, from glitter and bottle caps to birthday candles and empty Tic Tac boxes. Additionally, since no vessel would be considered seaworthy without a captain manning the helm, each boat was required to have a captain. One team went so far as design and print an effigy of a team member on a 3D printer. Ingenuity is always a key part of the science and math challenges we provide in the classroom and the students always surprise us with their originality.

While creativity was a large part of this challenge, there were



many aspects that were far more technical. A particular mechanical obstacle for the students was settling upon the most effective means of propulsion. Each team was given a battery pack, two DC motors, propellers, and a simple gearbox. This obstacle directly correlated with one of the learning goals for their math class, which was graphing a linear function, in this case time versus distance. This graph would become the numbers that would be crunched as they learned the key elements of effective linear graphs. All of this created a secondary goal of building a boat that was able to maintain a constant speed, which brought about so many questions to be answered, such as is it better to simply mount the motor on the boat transom and use the propeller directly in the water like an outboard motor for locomotion? Would it be more effective to use the gearbox and redirect the force to paddles on the side? How could the gears be used to either speed up or slow down the paddles? Also, what is the most effective shape for the paddles? These questions led to a great deal of time being spent in redesign and revision after the prototyping phase of the design cycle as teams began testing and improving their vessels. In fact, after

initial testing, several teams returned to the beginning of the design cycle and decided that the best option was to completely retool and build an 'air boat,' whereby the propeller never makes contact with the water at all.

One of the greatest strengths of our grade 7 students that was spotlighted during this project was their keen ability to not only demonstrate amazing creativity while working together toward a common goal, but to have a great time doing it. All students were required to research in order to justify their designs, then make modifications based upon the results of that research. The range of boat design was staggering: old time paddleboats, air boats, typical motorboats, square, round, even pyramid shaped boats all vied for top spot in one of the three categories. And while each race had a winning team, the greatest reward was not the win itself for many of the students, but rather it was the work they put in to each of their designs and their ability to create something they had never imagined they could have done just a few weeks before.



A Global Passion for Lichen

BY VICKY HUNG, GRADE 11, PUXI CAMPUS

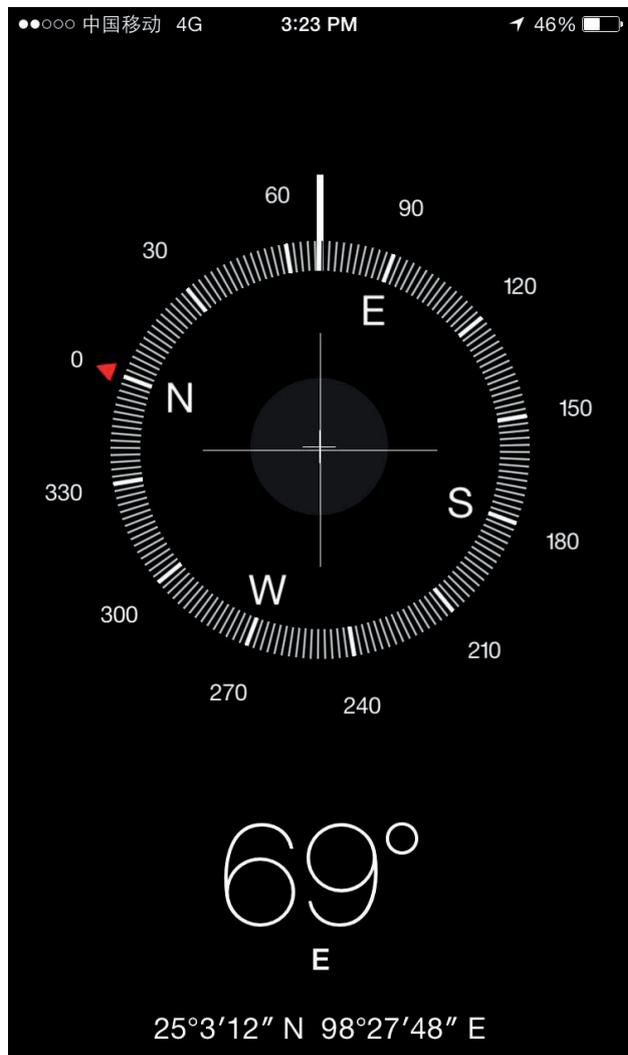
When going back to visit his home country of Trinidad, Mr. Dan Dubay, a science teacher at Shanghai American School, would observe lichens growing on trees. He found it strange that he did not ever see any lichens on the trees here in Shanghai. He has been searching and observing this phenomenon for over six years, and he began questioning his students at SAS to see if they had seen lichens in Shanghai over the years. They always replied with a “no” and often had no idea as to what lichen even was. That was when the idea for the Global Lichen Project (GLP) was created.

The GLP is a field study and global collaboration project that connects individuals from all over the world in a search for lichens. Lichens are very unique structures, because, technically, they do not belong to the plant kingdom or the animal kingdom. They do not belong to any kingdom, but biologists have placed them in the Kingdom Fungi. Lichens are a composite organism made up from a symbiotic or mutualistic relationship between algae and

fungi, where both organisms benefit from each other. Lichens are also bioindicators, so they can be used to monitor the pollution levels of an environment. They get their nutrients mainly from the atmosphere and—fortunately for the GLP—they are very sensitive to air quality.

The purpose of the GLP is to answer a simple research question, “Is there an association between lichen growth and the Air Quality Index (AQI)?” This question is being answered using data generated by SAS students, alumni, teachers (past and present), students in other countries, and any individual with an interest in science. In Mr. Dubay’s IB Biology class, his students are required to be a part of this project. Students use the chi-squared test for association and also complete some fieldwork using a sampling protocol.

According to Mr. Dubay the GLP “was a way to do a meaningful field study aligned with the IB Biology content and to also fulfill the aims of the IB learner profile and the SAS mission. We



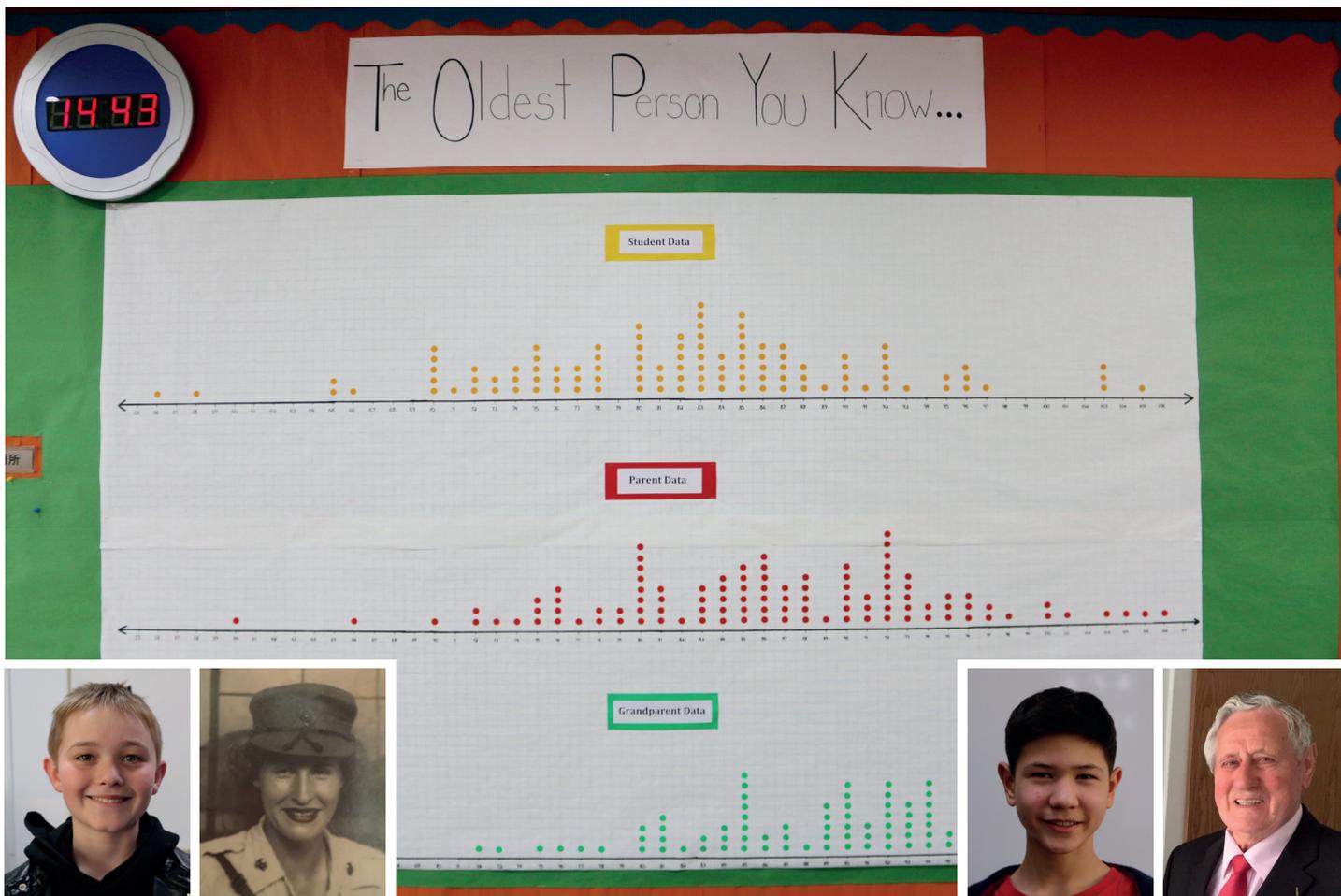
are in the middle of a big city, but all of our students travel to several parts of the world over the course of the year and they all carry those tools that poor Charles Darwin never had—the camera and GPS.”

During their travels, participants are told to randomly choose 10 trees that are over five meters tall, take pictures of the trees from eye level to the ground, find the average AQI of that particular location, find the GPS coordinates of the location, note any special conditions observed that are not shown in the image, and, lastly, post all of their findings to the Global Lichen Project page on Facebook. When enough data has been collected from around the world, students will be able to effectively address their research question on lichens and air quality. The GLP use social media, such as Facebook and YouTube, for this research project to enable students and others from all over the world to contribute and help advance this search for lichens around the globe.

This global collaboration project welcomes anyone who is

interested and takes all data and contributions into consideration. I have personally contributed twice to this project by uploading digital samples from Guangzhou, China and Siem Reap, Cambodia. As international students at Shanghai American School, we have the privilege of traveling often, so we are able to contribute data from various corners of the globe. It is also amazing to see people from all over the world taking time to contribute to this research project and help turn Mr. Dubay’s vision into a reality. This project is more than just samples and photographs, it is about bringing people together and providing them with a place to communicate and share their findings and passion for science.

On behalf of the Global Lichen Project I invite you to join us in global scientific collaboration. You can find us on Facebook under the name “The Global Lichen Project.”



The Statistics of Life



BY GLYNIS OGDEN-HILL, MATH TEACHER, PUDONG CAMPUS

“Who is the oldest person you know?” Grade 7 students on the Pudong campus were asked this question in August as part of their statistics unit in math. What they found out was interesting, both in terms of learning about statistics and learning about their older friends and relatives. Students were asked to do some research and determine the age of the oldest person they know, the oldest person their mother and father know, and the oldest person one of their grandparents know. The students then used this data to create dot plots and box-and-whisker plots to visually represent and analyze the data.

What did the students find out? They realized that working with real data is a great deal different than solving traditional problems from a math textbook. With approximately 330 pieces of data, students quickly learned that being organized, systematic, strategic, and diligent would bode well for them to complete their task of calculating the mean, median, mode, range, interquartile range, and the mean absolute deviation for each surveyed group.

Beyond the numbers, students found out some very cool facts about their friends and relatives. For example, Colin Russel’s Great, Great Aunt Frieda (Colin and Frieda are pictured above

left) was one of the first female Marines to serve in World War II. Chris Hentschel’s German grandfather, Max, (Chris and Max are pictured above right) was featured in an article in *The Guardian*, which talked about his unlikely friendship with an English soldier. Andrew Jiang shared some photos his grandfather took in Bama, China which is famous for its number of centenarians. One of the most interesting facts was that 17 people in our grade 7 community know someone over the age of 100!

These shared stories and photos brought about further interesting discussions such as, “What will the ramification be on Bama if more and more people visit in search of the fountain of youth?” and “If people are living longer, will they have to work longer to save for retirement?” These are not your typical math class queries, but we were all able to discuss these important questions that stemmed from a math lesson. The experience of asking a simple research question grew into so much more and took the grade 7 class far beyond mathematical calculations.



FLL ROBOTICS

“We’re not talking trash—we’re cleaning it up!” That was the tagline for the 2016 FIRST LEGO League Robotics Trash Trek Challenge. Not only did our school have several teams participating in this worldwide event, we hosted the international division for China! Barbara and Timothy Boyer, librarians at our Pudong campus, spent countless hours ensuring that our teams and our school were fully prepared for this event. All their hard work paid off—not only did many of our student teams win awards in the Core Values, Project, and Robot Design categories, but one of our teams is even going on to compete in the World Festival 2016 Tournament in St. Louis, Missouri in the United States as a representative of China! Congratulations to Team SAS Eagles!





We Built This City

BY ERIC PACI, GRADE 5 TEACHER, PUXI CAMPUS



The grade 5 hallway at SAS Puxi has taken on a new look, and it's not the cozy meeting areas for students or the abundance of school work on display that will catch your eye. As you walk down the hallway, you will discover 35 skyscrapers designed and built by the entire grade 5 class.

Students were asked to think about what Shanghai would look like in the future. They were presented with driving questions about how people live in large cities and asked to consider why skyscrapers are built. They also engaged in discussions about what challenges Shanghai will face as it continues to grow as one of the world's largest cities.

Students began the project with a trip to the Urban Planning Museum, where they found great inspiration and marveled at the immense scale model of the Shanghai. They then individually sketched what they thought skyscrapers would look like in the future before joining a group in order to merge their designs with those of other students. After learning how to draw a scale blueprint of an existing landmark skyscraper, students created blueprints for their own buildings. Finally, they worked diligently to build their dream buildings. This project covered math standards involving measurement, fractions, scale, and long division of decimals.

In the end, students learned from the unique challenges they faced as they worked together to complete their projects. Some students, like Kevin, felt their "biggest takeaway from the this



project was learning how to build to scale." Other students, like Ivory and Evan, discovered that "if you don't have teamwork you will fail—team work is the most important thing ever!" And some students, like Audrey, found the importance of believing in your dreams: "There are a lot of people who have dreams of building mega skyscrapers, but they don't have the bravery to try. If you have a dream, be brave and try your best to achieve it."



What's Cooking?



BY BEN HARWOOD, LOLA ALVEREZ, AND RUTH GANDARA, PRE-K TEACHERS, PUXI CAMPUS

This past October and November, the new teaching kitchen in the Puxi elementary school hosted our youngest group of inquirers when the Pre-kindergarten 3 and 4 classes started their first project based learning experience of the year, “Scientists in the Kitchen.” Through this initiative, children had the opportunity to explore different materials and their properties—such as wood, glass, plastic, and metal—as they worked together to whip up yummy treats.

With the understanding of the natural desire of children to investigate and to make sense of their world, a variety of learning invitations were set up on a daily basis to spark the childrens’ desire to experiment with different materials that were found in the kitchen. Not only did this project give the students the chance to work together as they learned about these new materials, it also offered a great opportunity for our Pre-kindergarteners to explore a new learning environment in their school. Our elementary kitchen space was custom designed to promote integrated learning experiences for all of our elementary school students.

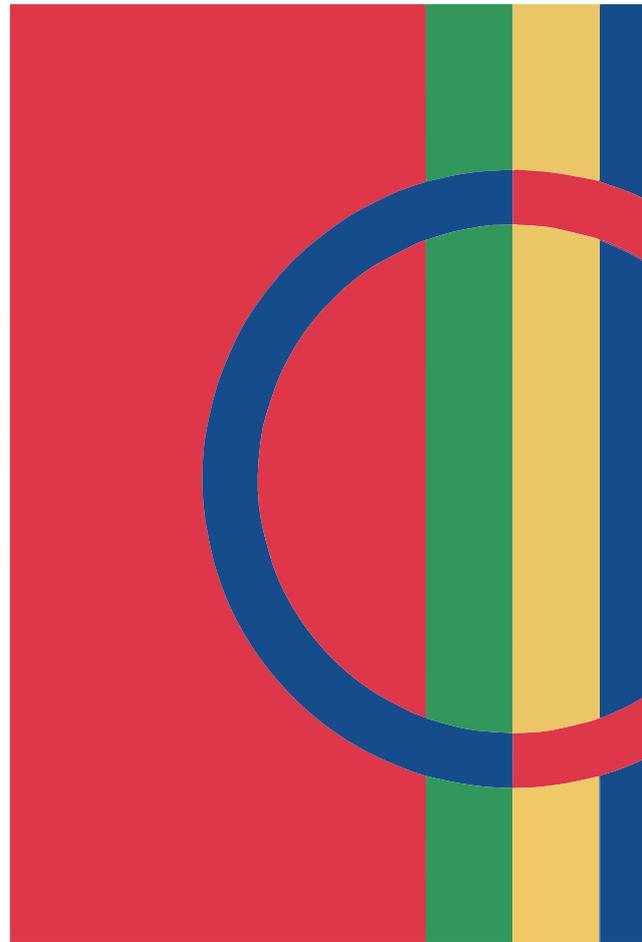
Students set out on their explorations, investigations, and experiments as they followed their inquiry question, “What kitchen



tools do we need to prepare our favorite foods?” Through manipulating a variety of materials, children were invited to share their discoveries, to use words to describe their observations, and to become familiar with new textures and the properties of different materials.

Students learned scientific concepts in a fun and stimulating way through experiences such as daily read aloud, games, and cooking. As a culminating event, Pre-K 3 students also recorded a cooking video of their favorite food using cooking utensils made of different materials.

In the end, the initiative was a meaningful project based learning experience. Our young scientists were motivated to learn about what the materials were made from, because all of the elements of the project were related to the childrens’ everyday experiences. Family members were also invited to join in and get involved in their child’s learning process by participating during cooking experiences at school. In the end, everyone had a great time learning about the tools they need to prepare their favorite foods—after all, the students got to make their cake and eat it, too.



Saving Saswonia

BY THE EAGLE REVIEW STAFF

The United States is a federal constitutional republic. China is a socialist republic run by the Communist Party of China. The United Kingdom is a constitutional monarchy. France works under a semi-presidential system. Chile is a representative democratic republic. Canada is...

Are you shaking your head to clear it already? Different types of governments and how they operate can be quite confusing. As adults, we sometimes pretend we always know what these varying forms of government mean exactly and how they differ, but it can be terribly confusing. This past trimester, the grade 8 humanities classes at Shanghai American School, Pudong campus were learning first hand how these various government systems operate, what it means to be a responsible citizen, and how to advocate for good governance from the ground up. But they weren't learning through rote memorization of facts, through never ending lectures from their teacher, or through History Channel videos. Instead, the grade 8 humanities classes learned by creating a political manifesto for the troubled land of a little country called Saswonia.

Haven't heard of Saswonia before? Did you miss that day in your geography class? Don't worry—you have never heard of it before because Saswonia isn't real. It only exists in the minds of

several grade 8 students, though it does have a national flag (pictured above). According to Ms. Laura Fishman, one of the grade 8 humanities teachers, Saswonia is “a nation that has great social, economic and political unrest. It is religiously diverse and much conflict has arisen because of these differences. The gap between the rich and the poor has increased dramatically due to past corrupt economic policies. Due to regional wars there has been a rise in the immigrant and refugee populations, but the country does not have the finances to deal with this influx nor with any possible political or natural disaster.” Obviously, Saswonia is in serious trouble and needs help and the grade 8 students drew on their research based ideas to solve Saswonia's greatest issues.

As a class, the students discussed their different personal ideas and examples of how other (real) countries have responded to similar problems. They debated, defended suggestions and learned how others would respond to a similar situation in a very different way. But, in the end, each student decided on their own how they were going to stabilize the desperate country of Saswonia.

Ten years ago, students would have had a few limited options on how to complete this project. They may have had to write a paper defending their political and economic plan for this burdened



land or perhaps put together a tri-fold board that would display their detailed plans and drawings. However, a lot has changed in the methods and resources available for students to share their ideas. For the current grade 8 humanities classes, the students did have to write a paper defending their 'political manifestos' for Saswonia and create a spoken version of their manifesto using visuals to enhance their message. The difference is the tools the students have available for their visuals. In Ms. Fishman's class, students utilized the tools on hand in Pudong's Design Studio. Guided by the Technology Resource Facilitators Mr. Simon Power and Mr. Joshua Brinn, Ms. Fishman introduced the students to all the options they had to present this project digitally. And no, we're not talking Microsoft PowerPoint. Rather, we are talking about light boxes, Adobe Voice, iPads, soundboards and an advanced application of iMovie. All of these options, and more, were readily available in the Design Studio, along with the specialized direction of Mr. Power, Mr. Brinn, and the technology aide, Ms. Lana Fajardo. In the end, each student created a personalized video that showcased their plans to help bring Saswonia back from the edge of the cliff politically, economically and socially.

Each student's work was graded based on four humanities

standards: Concepts, Writing, Language, and Speaking & Listening. Students had to ensure that their papers and videos not only effectively communicated their 'political manifestos' for Saswonia through the written and spoken language, but that each portion of the project analyzed the concepts of a government, authority and individual rights, was organized in order to best communicate the message in a clear manner, and that all examples and content was relevant to the topic at hand. Simply put, the students had to prove that they knew what they were talking about. And that is, of course, exactly what we need from the next generation of responsible global citizens.

Saswonia may be a fictitious country, but the ideas students were learning, grappling with, and making sense of are quite real and necessary for their future. At SAS the administration and faculty do not take lightly the charge that we inspire in all students a lifelong passion for learning, a commitment to act with integrity and compassion, and the courage to live their dreams. Through the daily classes, projects and after school activities, we are purposefully helping build their future. We are providing a stable foundation for future change makers, whether they be doctors, lawyers, teachers, businesspeople, or, perhaps, even politicians.

D **R** **E** **A** **M** **S**
DESIGN RESEARCH ENGINEERING ART MATH SCIENCE





The Wetlands of Chongming

BY HARRIS GOULD (PSEUDONYM), GRADE 11, PUDONG CAMPUS

The twisting forms of a flock of Mandarin ducks flying overhead, the soft rustle of vast expanses of chord grass, the soft ripple as the still form of an alligator sank below the surface of the water—these all seem like descriptions from somewhere along the lines of Florida’s Everglades, but they’re not. All of these can be found on Chongming Island, where, unlike in the rest of Shanghai, nature and conservation takes center stage. The island’s parks and reserves are inhabited by a wide range of endangered native wildlife, ranging from the Yangtze Alligator, extinct throughout much of China, to the Reed Parrotbill, a diminutive and energetic bird now confined to select locales that still hold the vast reedbeds they need to survive, Chongming being one of them.

I have personally always been somewhat overwhelmed by wetlands; I am far too accustomed to seeing pigeons or sparrows in the streets and maybe glimpsing a flyover heron or egret every other week. Unlike the relatively barren cities, wetlands team with life. In the half day visit to Chongming Island that my AP Environmental Science class took to observe the wetlands, I glimpsed approximately 40 different species of birds alone, not to mention numerous plants, insects, and arachnids. There seemed to be something new on the underside of every leaf, or under every stone—some odd, jewel like tortoise beetle or the skulking shape of a shy finch. Although many may say that noticing the secretive warblers, or the camouflaged katydids, or even the furtive alligators, takes the eye of ‘some professional biologist’, I have personally never really believed in that view. Spotting wildlife is not so much something that comes with a doctorate, but rather just being aware of some of the little things out of the corner of your eye—you really do not need to be professional, just attentive.

But of course, some areas are more suited for wildlife spotting than others. The Chongming wetland reserve is one of the best in the city’s vicinity and offers a brilliant window into what Shanghai looked like before its wide scale industrialization: vast expanses of reeds and rushes, dotted at some points with short trees, and in the distance, receding to give way to vast mudflats that present a dynamic ecosystem that changes with every rise and fall of the tide, home to a multitude of crustaceans and mollusks and the shorebirds that fed upon them. Such habitats were once prevalent throughout the east Chinese coast and are a vital staging ground for migrating birds that undertake two tremendous journeys each year from their breeding grounds in Siberia and Japan to wintering sites in Southeast Asia and as far south as Australia and New Zealand. However, recent decades have seen a rapid, unrelenting development of ‘wasteland’ all along the Chinese coast, pushing out the wildlife that desperately needs such habitat to survive.

The push for ‘development’ in coastal China has been devastating for the nation’s already besieged environment. Preserves such as Chongming, although still full of a multitude of treasures, are now islands in an urbanizing sea. From my vantage point on a pavilion at the reserve’s boardwalk, I could see the silhouettes of trucks hurtling down a local road, carrying building material. On my way out of the wetland, I saw the skeletal frame of a construction crane rising out of an adjacent area, one of which was under the direct protection of the preserve. And yet not all crumbles at a touch, for an orange bellied Redstart, a delicate little songbird, hawked for insects from its perch on a rusted pipeline, amid a heap of twisted steel dumped unceremoniously in the reeds. The image of this little bird foraging amongst the industrial litter was, I thought, reason for hope. Nature, it appears, has a surprising ability to cling on in improbable places and will probably never be truly lost from sight. They will always be there in some way, even if it is at the corner of your eye.







Traffic Jams are the Worst

This year several tricycles were graciously donated to Shanghai American School, Pudong campus, on behalf of Radio Flyer and Shanghai Uzone International Trading Company. Because of the frigid temperatures outside this winter, Titian Wu (pictured) and his fellow Pre-kindergarten classmates recently enjoyed riding them around *inside* the school! According to Eric Nicolai, a PE teacher on our Pudong campus, tricycles are a great resource to use to develop coordination in children. It looks like Titian has this skill down!



March Music Madness



BY BARRON HAN, ISABELLE SO, AND VIVIAN WAI WAN LAI, GRADE 8, PUXI CAMPUS

Most of the time, making music is a collaborative effort; we work together to make the music and perform it. It is, after all, a social and cooperative activity. After a great collaborative winter concert, the middle school band began to move on to their next unit— solo performances and a contest. The solo contest was a great way for each person to step up and show what they could do individually.

Each student got the chance to choose their own piece and then ‘compete’ with each other, as well as receive a grade for their performance. The highest ranked players within each class then went on to compete in a final round for a panel of two professional musicians from London. The string students also took part in an ensemble contest. They worked in small groups to perform and compete for the same judges. The winners went on to perform in front of the middle school and got a trophy!

Throughout the solo unit, the students were able to hone the skills that they had been practicing. Some students had been nervous about performing in front of a large audience and discussed their different methods on how to relax when on stage. One student said “I kept telling myself to imagine that I am looking at the audience in their underwear and just laugh it out. I wanted to make sure I was relaxed and focused so that I was able to bring out my true potential.” Another student thought organization, rather than humor, would best fit their needs: “I have learned that preparing is an extremely important part of playing a solo. You have to make sure you are organized and that you are efficient when you

are practicing and preparing your piece.”

This solo contest was just one event in our “March Music Madness.” During the three weeks that this event took place we had visitors coming into our classes. Our brass guest musicians were Aaron Whitek (trumpet) and Jason Rinehart (French horn) from University of Louisiana at Monroe. They worked with students from grades 5 through 8 and brought their expertise on brass techniques and performance.

We also welcomed world renowned musicians Julie Wright and Nicholas Foster to our campus. They taught clinics to our flute, clarinet, and saxophone players. Julie is from the famous Needham flute and piccolo family of the Halle orchestra. She has taught at Trinity Music College in London and teaches courses for adults and children all over world. Nicholas is a graduate of Chethams School of Music. He has performed and recorded extensively with Ulster Orchestra, Royal Liverpool Philharmonic, BBC Philharmonic, Halle Orchestra, Bolshoi Ballet, and many more. He is also an arranger and composer and teaches worldwide. The students were excited to take clinics from the guest musicians and meet them in class!

At Shanghai American School, collaboration and creativity are some of the integral 21st century skills our students develop through real life learning. When teachers and visiting experts work together with our students, both within our school walls and beyond, our students’ education is enhanced by learning through their experiences.



In Your DREAMS

BY JAMES ANDERSON, GRADE 4 TEACHER, PUDONG CAMPUS



Your task is to dream big – ready, set, go! Students in grade 4 recently spent an afternoon in the elementary school’s DREAMS lab where we had the time and opportunity to do what the lab stands for (Design, Research, Engineer, Art, Math, and Science). The driving question in our most recent science unit on energy was, “How is energy used, changed, and transferred?” One way to answer this question firsthand is for each of the students to build their own solar panel windmill.

The sun is the biggest source of energy for our planet and we are only just beginning to harness it. It will be up to our younger generations to maximize this form of sustainable and clean energy for future use. This is where the DREAMS lab comes in. We were able to spend the time in this purposefully built lab, which enhanced the possibilities for this project, with resources and a building space otherwise not easily available in regular classrooms.

In this particular project, students decided on how they wanted to build a structure to hold the motor and solar panel and then were able to determine the best position of the panel to capture the sun’s rays. They used their creativity skills by decorating the windmill with materials in the lab. Some students chose to design a lighthouse to go with their windmills by using copper wires to connect a light and a battery. Other students created a super structure to better support their solar panel windmill. By day’s end, students were proud of what they accomplished when they put their windmills under the sun’s rays and saw how energy can be used, changed, and transferred.



Our makerspaces at SAS, like the DREAMS lab the students in this article were able to use, are funded through your donations to Our Edge for Excellence. Modern education needs a different space and better tools. Innovation, critical thinking, hands on learning, and interdisciplinary work require a state-of-the-art learning space that is stimulating and interactive and can grow and adapt to meet the needs of our students. Your gift to Spaces for DREAMS through Our Edge for Excellence will provide the tools and spaces to support how our students learn and prepare them for their lives in the future.

Listening To Our Students' Voices

BY LOLA ALVAREZ, PRE-KINDERGARTEN TEACHER, PUXI CAMPUS

Last year two of our teachers created and ran an after school activity that allowed elementary school students to create a brochure for Shanghai American School. The idea behind this student driven activity was inspired by the two teachers' passion for ensuring that the voice of children is recognized and valued for its unique and integral perspective. During the six weeks of this project the students' learning journey was documented in order to make the process and learning visible to the broader school community. Through this project, Ms. Alvarez and Ms. Ruth Gandara hoped to further instill a legacy for our future educators to continue to embrace endeavors that honor and empower the voices of our students.

Participating in the design of a school brochure was an opportunity for a group of students to share their feelings about our school. Each student was asked to choose their favorite place at school and to describe it as if they were inviting and convincing a friend to come and visit. During six consecutive weeks, working sessions were planned and organized based on the brochure design essentials, such as marketing, communication, and creativity. Brainstorming, team discussions, decision-making, and democratic voting were important teamwork skills applied during each session.

The goals of the first group session were team building and learning the importance of images in marketing. Throughout this process the students' communication skills were being refined. They learned about the power of words and images by writing powerful statements and drawing sketches that could motivate other children to want to join our school. As the project progressed, the students decided that they should look through the current publications that the School uses for marketing and discussed how they wanted the final layout of their brochure to look like. After much discussion, the students agreed upon the need for consultation with experts in the fields of photography and publication design. Two members of the Communications Office at SAS went to a meeting and consulted with the group. They clarified doubts and enriched the students' understanding of the important elements in a publication and offered assistance in retaking the photos with a professional camera. However, students still had the main voice in deciding upon how the finalized brochure would look. At the last team meeting all the data the students had worked on, including photographs, drawings, sketches, and quotes, were given to the Communication Office. The final task the students worked together on was choosing the name for the brochure. They discussed it and decided upon the title "Children's World at SAS."

Students were engaged and committed throughout the process of designing our school brochure because they had the opportunity to work in partnership with teachers in a real and purposeful task. Trusting the children's abilities and welcoming their ideas was a rewarding experience for both the students and the adults involved. The excitement and enthusiasm was contagious among all of the team members. Hands on experiences and learning about different media, like photographs and sketching, encouraged active participation and helped the children take leadership and ownership over their learning.

Children's World at SAS is a brochure that captures the essence of our school from the children's perspective. This thoughtful document, which can be found on our website, honors our children's voices and aims to inspire other teachers and schools to empower their students through meaningful projects where children's ideas can be heard and appreciated. At Shanghai American School we believe that by offering choices and providing a wide variety of innovative practices, we can empower students to discover their talents, pursue their passions, help improve the world around them through their integrity and compassion, and instill in them the courage to live their dreams.



D R E A M S
DESIGN RESEARCH ENGINEERING MATH SCIENCE



A Cardboard Canoe

BY MICHAEL CHANG AND CODY MESSICK, GRADE 12, PUDONG CAMPUS

If there is one thing we (thought) we learned in our Introduction to Engineering class this past semester, it was that duct tape could fix everything. It's an airtight sealant. It's a strong adhesive. It's completely waterproof. If you knew this and were given the task of making a two seat boat out of nothing but cardboard sheets and excessive amounts of said duct tape, you'd do what we did. Cardboard joints not holding together? Duct tape. Hull needs to be waterproofed? Duct tape. Duct tape peeling off because of stress caused by the cardboard pushing outwards? More duct tape. It's not too surprising that the engineering classes ran down to the very last strip of the very last roll of duct tape for our cardboard canoe project—by the time we got into the water, our boats were probably more duct tape than cardboard. By the time we finished making our boat, it was practically invulnerable...or so we thought.

The purpose of the cardboard canoe project was to apply what we had been learning about the engineering design process in our class. Our teacher, Mr. Gary Serbent, defined the project goal as being able to float two students down and back the length of the swimming pool using only cardboard and duct tape. After negotiation with the class, we decided that further restrictions included that the 'boat' could not exceed six feet by six feet and that it could not have duct tape on the topside. As we began the alternative design process (brainstorming), some ideas from the class included a large raft, differing canoe and boat designs, and even a long cylinder that would act like a log in an effort to include the legs as a source of power. Each pair used physics force diagrams and buoyancy equations to identify the best alternative design and complete a conceptual design proposal to be submitted to Mr. Serbent.

"My teammate, Alec, and I anticipated that the forces from the water would not only be acting straight up on the bottom of the boat, but also pushing in the sides," Messick reflected. "As part of our detailed design, we accounted for these additional bending stresses on the boat by cross bracing the bottom. In construction, we rolled cardboard into beams, folded and duct taped cardboard to form a sleek looking canoe. We would later find that the additional work we put into cross beaming is what made us the most

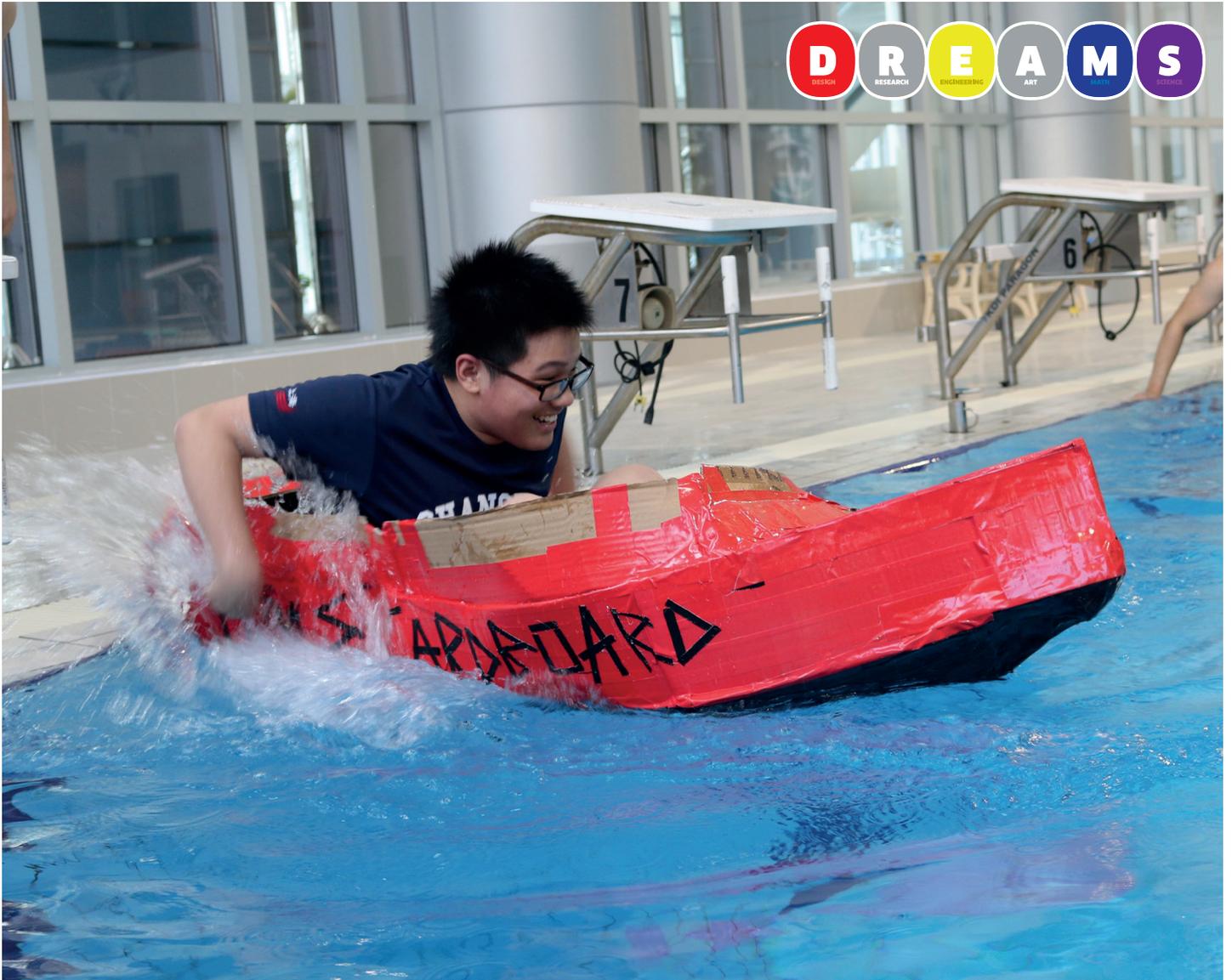
durable and successful boat design, as many boats crumpled from the sides and sunk as soon as the students got in."

For Chang's team, despair came more quickly. "Unfortunately, as our boat slipped into the waters of the school swimming pool like a graceful swan, we realized that duct tape couldn't fix broken dreams. And as our boat sank to the bottom of the swimming pool like a graceful lead weight, we wished that we had used some actual physics and design work instead of drawing a vaguely boat-shaped scribble on a sheet of notebook paper and noting that it 'looks good'." This was the basic issue that the engineering design process tries to avoid and the focus of our first semester in our engineering course. Problems have to be defined clearly and addressed in a comprehensive and precise way—with emphasis on the comprehensive part. Plenty of boats looked rock solid on land, but after a minute in the water they fell apart like boiled cardboard spaghetti. If the hull were just a few inches too narrow or the sides a few inches too short, dozens of hours of hard work would be undone in a few seconds of flailing and utter despair.

As budding engineers, we struggled to plan and make these boats in the short time allotted to us. We wrestled with rigid sheets of cardboard that needed to be bent into curves. We worried about buoyancy, speed, and stability. Though we laughed as our boats absorbed pool water like sponges, it hurt to see weeks of labor and planning literally fall apart in front of us. With hearts as unexpectedly heavy as soggy cardboard, we dried off and went home.

For all our procedure and planning, this project has made us realize that we are not quite engineers yet. But as engineering students, we learned a lot through this entire project and had a lot of fun. This experience gave us a real life understanding of the physics concepts we had been taught and gave us the insight that these facts really do apply in real life, outside of the classroom. We began to appreciate the intricate and effective methodology of the engineering design process as well, because when it was applied in our projects, it allowed for the teams to anticipate and solve problems before too many resources were wasted on trial and error. The entire experience of designing and building a cardboard canoe was a mixture of hard work and laughter, and it reminded our class of one important fact: learning is fun.

D R E A M S
DESIGN RESEARCH ENGINEERING ART MUSIC





To Catch a Fox

BY EMMY DAVID, GRADE 3 TEACHER, PUDONG CAMPUS

Traditionally, and from necessity, teachers do a lot of planning. We plan for lessons, we plan for pre and post assessments, we plan for field trips, we plan for student awareness, and we even plan for when we have meetings to plan again! All of our planning is not done in vain, however, and the more planning we do the more likely we are to have a classroom that runs smoothly.

Once in while there comes along an opportunity to throw those well thought out plans right out the window, take the curricular bull by the horns, and ride it out to see where it takes you. One such opportunity presented itself in my grade 3 classroom recently and we would like to share our experience of how 16 third graders went about catching, and eventually releasing back into the wild, a ‘fox.’

This particular fox has a name and my class knows him well – Mr. Spraul. Mr. Spraul comes into my classroom often for various reasons as he too teaches grade 3 down the hall. He does, however, have certain habits that were unsettling to us and therefore needed to be addressed. Two days a week during our morning meeting he would quietly sneak into my classroom, much like a fox, to borrow a certain book from my bookshelf. Although I had given him permission to borrow the book, the students wondered why he never said “good morning” or even a simple “hello.” So, they felt they had no recourse but to set a trap and get some answers.

With my permission, the class started on a plan. We noted his habits and made sure we could predict his behavior. We then worked together to come up with ideas for a trap that was secure enough to hold him, would not hurt him, and yet would allow us to fulfill our purpose, which was catching and releasing him only once he said that our class was “the best class ever.” Our grandiose plans needed a larger space for us to spread out, so we went to the DREAMS Lab in order to have enough space for our innovative thinking, planning, and building of the trap. Over the course of four days we narrowed down our plans for a trap to a final version, built a prototype, and created the final version. Now all we had to do was lure the fox into our lair and see if our trap would hold.

We quickly sent off a little “invitation” to come to our room at a specified time to borrow the book he is always after and we even added the incentive of a sweet chocolate treat. Of course, because we had done our research so thoroughly, we knew he wouldn’t be able to resist the temptation of a sweet treat, so we set our trap and waited. He showed up right on time to collect his book and extra treat and with a sudden rustle of paper, a catch of a few strings, and a look of surprise, we had our fox!

Our fox was surprised, to say the least, but he patiently inquired about our demands for release. We shared with him our thoughts about him declaring that our class is the best class ever, but only if he would like to continue borrowing my book. He accepted and we granted him permission to leave.

Thanks to a little persistence, ingenuity, patience, and some good old fashion fun, we learned a lot about planning, innovation, and trial and error. Teachers know that the best lessons came from working together to achieve something great, even if it is not in our planning book.





Life's Treasures

BY MAYA KOLLURI AND ALEX TANG, GRADE 8, PUXI CAMPUS



We all have objects that we treasure, whether it is something that has monetary value or a small little trinket that has emotional value, and we all have memories from our life experiences attached to these objects. In grade 8 Language Arts we have been writing about important objects, or “artifacts,” that are significant to us personally. We gathered everything from blankets and medals to hair clips and tickets from a show. These artifacts might seem to be common everyday items to others, but for the student who brought them in, they have vastly impacted them or have been a part of their childhood. We took these important artifacts from our lives and put them on paper.

For the past month we have been dedicated to writing and organizing our stories about these artifacts. We have taken a leap in our writing as our teachers guided us through the process of incorporating different styles into our piece. The end goal was to gather the stories and create an iBook that would be made available to purchase online. Our work on this project also included editing, revising, partner revision, and, most importantly, identifying and including themes in our pieces. To do this, we split into separate committees. These included the copy editors, who were in charge of editing the essays that we wrote. They helped us make changes to our essays and gave detailed feedback to us. Photo editors helped collect pictures of our artifacts and digitally edited the photos when necessary. They also helped decide where to place

the photographs in our book. Our official anthologists helped the overall process by putting the book together and publishing it by combining all of the committees’ work. The cover committee designed the cover and gave our book the name, *reminiscence*. The layout committee helped format our work, decided which font to use, and worked alongside the other committees to make sure the book was to scale. Last, but not least, the publicity committee helped spread the word about the book through WeChat, morning announcements, and generally raised awareness about our book.

Our goal through publishing and selling *reminiscence* is to help other children who are less financially fortunate, so that they will also have to chance to develop their own personal memories or objects that they can hold on to and reminisce about later on in life. Money from the purchased books will be donated to the Bao-bei Foundation, which is an organization that supports Chinese babies with certain medical conditions and provides them with a childhood that they would not have had without Baobei’s help. We sympathize with these children, as they have not yet had the chance or opportunity for a good education. We strive to provide them with the experiences that will help them develop, and we believe that just because they are less financially fortunate than us does not mean they do not deserve equal opportunities. We hope that, through this book, we can help them and provide what we can for these babies and children to ensure that they too will have great memories from their childhood.



Why We Give

BY CRICKETT KASPER, DEVELOPMENT AND ALUMNI RELATIONS MANAGER

Sanna and James Robinson joined the Shanghai American School in 2008 as newlyweds. Sanna is the vice-principal in the elementary school and James teaches humanities in the middle school, both on the Pudong campus. Their oldest child, Maya, is in our early childhood program and their youngest, Desmond, will be joining us next year. I spoke with them about why they support Shanghai American School and about approaches to philanthropy in their family.

Q: You have been at the School a longtime. Why did you first want to come to Shanghai American School?

S: We were teaching in another part of China, but SAS was our “dream school.” We had met with Andy Torris a few years before at a job fair but, unfortunately there were not jobs for us. He said we should come back in a few years. That is just what we did two years later.

It is funny, I went to a hiring fair to represent SAS this Winter as a vice-principal. It turns out I was hosting interviews in the same room where James and I were offered our jobs eight years ago.

Q: Is it still your “dream school?”

S: As a classroom teacher first and now as an administrator, I am just so honored to work with such great people. It is really all about the people who work here and I have become a better professional because of my time with them. Having the amazing facilities and all the other resources is wonderful, but it is the people at SAS that make it a great school.

J: When you first come to SAS you’re told you will leave here a better teacher. That is 100...no, a million times true.

Q: Do you remember the first time you made a gift to an organization?

S: When I first started making my own money, in college, I started to give back. There were many kinds of student groups that were raising money and I tended to always support those that had to do with kids. Those were the organizations that pulled at my heartstrings and that’s when I started to be conscious of my own giving.

J: I am not sure how to answer this question because I don’t think of myself as a giver. Or at least I was not until we got here to SAS. Our financial circumstances had improved and I felt like we should start giving some back. I think when we first came to Shanghai we realized that we were lucky to work here, to be here, to have what we have. It is mind blowing to think how good we really do have it and so it was nice to be able to give back to those not as fortunate as us. That is where my giving really started.

Q: Philanthropy is a learned behavior. Did you learn about giving from your family or more your life experience?

S: Yes. I was raised by Muslim parents and part of my religion

is to give back and help those less fortunate. There were times growing up that it was challenging for my family to give based on our circumstances, but it has always been part of what we believed. Part of that experience has been that now that we are in a situation with the ability to give to others we do because we can see the benefits and the impact it has.

J: I did not have the same experience. My giving really started with a project my class did here at school: the impact project. The students researched groups and organizations that were supporting different causes around the world..

Working on this project with the kids opened up my eyes to some of the struggles others were experiencing. It made me want to give. So I matched the donations several of the organizations and today Sanna and I still give to some of those organizations.

Q: Are you planning to teach your children about giving back?

S: Our time overseas has given us perspective on what we really need. And it has helped us think about helping others. We have started talking to Maya about these types of things recently. Every Christmas after we open presents we go through all our old toys and books and decide which ones to give to others. It can be hard for a three and four year old to do, but the kids helps us decide. Introducing the idea of giving by starting with toys rather than money may seem simple, but the lesson and the impact are the same.

Q: Why do you give to Shanghai American School?

S: It feels really good to give back to the School because it has given us so much. Honestly, we did not really think about giving to our workplace in a real way until our daughter was getting ready to come to school here. Knowing Maya was coming here made us more appreciative of the institution. The school is essentially helping to raise our daughter and it is really important to give to that.

J: Honestly, I have to say that I still do not really like it. It makes me feel uncomfortable somehow. I remember several years ago sitting in the auditorium with the other faculty to hear about fundraising at SAS. The first presentation was about the 100 for a 100 Campaign. And then one of our high school kids got up to ask for the faculty to support a different cause. He struggled through his presentation but by the end everyone applauded him. That kid needed our support more and that’s what giving is about for me.

Giving to an organization that already has so much is hard for me. But Sanna is right. We are appreciative of the School. And knowing that our daughter is here and our son will be, that is important and that is why we give.

APAC Second Season Wrap-Up

The second season of APAC sports wrapped up in January. Our basketball, swimming, and table tennis teams did a great job at representing Shanghai American School on the court and in the pool! (👑 = Championship Title)

APAC BASKETBALL

Puxi Boys: 1st Place 👑
Puxi Girls: 2nd Place
Pudong Boys: 2nd Place
Pudong Girls: 7th Place

APAC TABLE TENNIS

Pudong Boys: 1st Place 👑
Pudong Girls: 1st Place 👑
Puxi Boys: 4th Place
Puxi Girls: 4th Place

APAC SWIMMING

Pudong Boys: 4th Place
Pudong Girls: 3rd Place
Puxi Boys: 3rd Place
Puxi Girls: 4th Place



PHOTO BY JERRY KOONTZ



Physical Education Student Mentoring

BY PHYSICAL EDUCATION DEPARTMENT, PUDONG CAMPUS

High school students put the fun back into fitness for the elementary students. “Students from high school look big and scary,” and “they are a little bit frightening.” These were a few of the statements uttered by two of the elementary students before an exciting event that was about to change their minds.

Through the collaboration between the high school and elementary school PE departments, high school students became the PE teachers, and they planned, designed and ran activities for the younger grade levels. These activities were not just for the sheer fun of it, though everyone did enjoy themselves. Instead, the high school students were demonstrating their expertise and knowledge around a specific fitness component.

After each class the students both from elementary and high school reflected on a circle map stating what they learned and what they enjoyed. A circle map is one of eight types of “thinking maps” that are used in education to provide a visual tool for learning and processing information. The circle map is specifically used for defining an idea or thing, such as “What I learned,” in context. Their responses, seen in the graphics on this page (which are not exact renderings of a circle map), were quite diverse and helped the students put this activity in context.

In the end both, the high school and elementary students went away with an appreciation and understanding of each other. Both groups were excited for more of this type of collaborative learning to take place in the future.

HIGH SCHOOL
 EXPLAIN INSTRUCTIONS CLEARLY
 KIDS LOVE INCENTIVES
 KIDS NEED ENCOURAGEMENT
 KIDS CAN'T DO EVERYTHING WE CAN
 KIDS HAVE NO FEAR

HIGH SCHOOL
 BEING WITH THE KIDS
 SEEING THE KIDS ENJOY THE GAMES
 PLAYING WITH DIFFERENT AGE RANGES
 BEING A TEACHER
 HOW ENERGETIC PRE-K WAS

WHAT I LEARNED
 HOW TO BALANCE WHILE MOVING
 FITNESS IS FUN
 WE CAN LEARN FROM BIG KIDS
 BIG KIDS ARE GOOD AT EVERYTHING
 I CAN HAVE FUN WHILE WORKING HARD
ELEMENTARY SCHOOL

WHAT I ENJOYED
 WORKING WITH THE BIG KIDS
 LAUGHING SO MUCH
 LAUGHING SO MUCH
 BEING CHASED BY THE BIG KIDS
 LEARNING TO BALANCE
 LEARNING NEW GAMES
ELEMENTARY SCHOOL





A Family Game

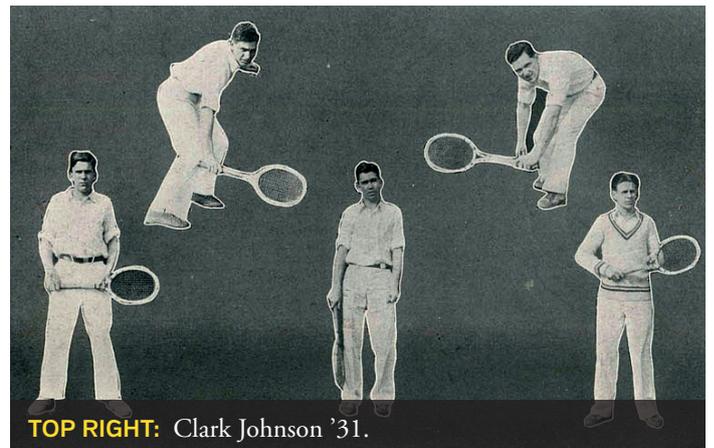
BY GREG MACINTYRE, LEARNING SUPPORT TEACHER, PUDONG CAMPUS

Did you know that Shanghai American School had a varsity tennis team back in 1931? Well, believe it or not, it's true! My grandfather, Clark Johnson '31, was captain of the Boys Varsity Tennis team.

My grandfather spent his early childhood in Nanchang, China and began attending SAS in grade 7. At that time, SAS was a boarding school, and my grandfather lived on campus. This allowed him to become very involved in campus life. Judging from his 1931 senior yearbook, he was involved in just about everything SAS had to offer! He wrote for the school newspaper, acted in school plays, sang in the Glee Club, managed the boys' dorm, and played several varsity sports—including track, basketball, baseball, and tennis. As the Varsity Head Coach for the SAS Boys' Varsity Tennis team, it is truly special for me to know that my grandfather was captain of the same tennis team 85 years ago.

I am sure that he would be very proud of the new varsity captains that have followed in his footsteps. Seniors Siddharth Chandra and Tiffany Gao led the entire tennis team to its most successful season so far! With their enthusiasm, passion, leadership, and wonderful tennis skills, our captains helped this year's team post some very impressive results. The overall team standings included 2nd place finishes at WAB-X Tri-Cities and at SISAC, division I and II. The girls team won 2nd place at the APAC conference tournament, and the boys team earned a hard fought 4th place.

This tennis season, Siddharth and Tiffany were our doubles specialists and enjoyed many very satisfying victories. Siddharth paired with Phelim Tong, grade 10, to win the Shanghai Cup as



TOP RIGHT: Clark Johnson '31.

well as place 3rd at the APAC tournament. Tiffany paired with Sara Lawler, grade 9, to win the Shanghai Cup as well, and became our first APAC Doubles Champions!

My grandfather quoted Shakespeare on his senior page by saying, "Pluck up thy spirits. Look cheerfully upon me." I know that this quote could just as easily be quoted by Siddharth and Tiffany, for they have helped to foster a wonderful team spirit, not only as captains, but over their entire four seasons with our teams. With their true character, commitment, and sense of school pride, our captains are helping to keep Shanghai American School's tennis history alive.



The Life Lessons of Football

BY KYLE WU, GRADE 8, PUXI CAMPUS

Football is a pretty serious sport. A lot happens in a single moment, and the mistake of a single player could be the difference between a win or a loss. It's not an easy sport to play; it requires strength, agility, speed, and power. These qualities don't usually come naturally to people, but are skills that take hard work to develop. With all of the challenges involved in this sport, you may wonder why a person would even want to play it. For me, football is more than just hitting another player on the field—it is a sport filled with lessons that have been life changing.

The summer before seventh grade I knew I wanted to play football. I felt that it was something I could be really good at if I worked hard and dedicated myself to it. I found a summer football camp in the United States that I thought would be beneficial for me, O-D Football Camps. They have many alumni that ended up playing in the NFL. After four days of camp, I had gone through 27 grueling hours of practice. When I got back home from camp, I was so tired that I couldn't even stand up properly. However, this camp showed me that I could do anything as long as I put my mind to it. This was one of the many life lessons that I am learning through football.

Once school began I was set on finding a football team to play with here in Shanghai and I found the China Sea Dragons. When I joined, the team didn't have a quarterback, so I decided that that I could tryout for and play this position. At the first game I found out that we would only have one opponent, the Shanghai American Football League Dragons. This made me confident that we would be able to win a few games because I thought we would be able to figure out the other team's plays.

By the end of the first game I was no longer sure that that would be able to happen because we lost by multiple touchdowns. The next two games didn't help in letting me think that we would be able to win any of the games—we were completely shutout. We entered the final game knowing that we absolutely had to win, it was our last chance. We managed to move the ball efficiently on offense and our defense was able to hold their offense. I managed to score two touchdowns and we won the game. Words could not describe our excitement over our victory. Winning a game after so many losses taught me to keep my head held high, because you never know what could happen.

The next chance to play football came that winter. I was invited to play football at the O-D Bowl because of my performance during the summer camp. My family and I travelled back to the U.S. for this great opportunity. We played our first game at the Citrus Bowl and won 14-0! But we lost the second game on a last minute touchdown. However, I still felt that this was one of the most exciting opportunities for me to play football because I was playing with some of the best players in the United States.

Football is a sport that I love. I talk about football everyday, to whomever I can. To me football is no longer just a sport, it's something that has taught me important life lessons. From a sport that some think is brutal I've learnt to keep my head up, how to work as a member of a team, and that anything is possible. People may say that the sky is the limit, but I've found out that there are no limits and I hope that I'll be able to help others appreciate this great game as much as I do.

Double Exposure

BY DAVID GRAN, IB FILM & VISUAL ARTS TEACHER, AND SCOT SLABY, ENGLISH TEACHER, PUXI CAMPUS

When Poet Greg Williamson began to write his *Double Exposures* poetry, he was inspired by ‘double exposure’ photography. The term double exposure refers to when a single photograph has been exposed to light twice, resulting in a unique juxtaposition of imagery. Williamson’s poetry, which is unique much like double exposure photography, can be read in three different ways. Like every other piece of literature, it can be read in the most straightforward and obvious of ways—from the beginning to end. However, the even numbered lines also form a unique poem, as do the odd numbered lines.

When we began discussing the idea of doing a cross curricular project between our Creative Writing and Digital Video classes, this approach to overlapping ideas seemed to us to be an excellent starting point to connect the written word and the moving image. Over a few weeks last fall, our students in the Creative Writing class wrote poems, which were then animated by the students in the Digital Video class. We decided to call our project “Interlaced Poetry” to establish the connection between the poems one class wrote and the animation the other class created. In the film industry the term “interlacing” refers to the two fields that are often used to increase the frame rate possible in a broadcast. Of course, for our purposes, it also suggests a weaving of ideas between both the poems and the subject areas.

Students in their Creative Writing class examined several poems by Greg Williamson and others prior to students undertaking the task of writing an interlaced poem on their own. “We knew we’d have to do the process ourselves to see how this would work for our students,” said Mr. Slaby. “So we wrote a poem via email together, just like we’d expect students to do, and we examined what problems we might face along the way.”

Students in Mr. Slaby’s class then completed an activity in which they each alternated lines of five words via email, WeChat, or Skype. By setting agreed upon limits to their word count, students were engaged in normative isoverbal prosody (line lengths determined by a consistent number of words in each line). “The main challenge was for students to work interdependently to have the poem shift from its initial idea,” said Slaby. “Students had to have their own lines work together as a standalone poem and then also to have those same lines work interspersed with their peer’s work.”

Senior Nick Guo stated that he and his classmates “had to collaborate, and that made it harder but also more interesting as well.” While Creative Writing senior Peter Cheung was “very excited to see these videos that are transformed from our poems.”

After the first group of students completed their poems, the students in the video class undertook a unique and creative challenge. They were each given a single poem from the Creative Writing class and asked to storyboard it as an exercise. Unlike the standard storyboarding procedure they use for other projects, they were asked to work out their ideas on tracing paper. It was only after they finished the first part of the project that the students were

told that their poems were ‘interlaced’ with another poem in the class, and they were faced with their next challenge. At that point the students had to pair up with their poetry partners, the person who had the other portion of the poem, and look for connections in their ideas by observing the juxtapositions created by overlapping their transparent storyboards. The students then used this exercise as an entry point to create their own video animations that can be experienced in the same way that Williamson wanted his poetry to be experienced—as interdependent works of art, creating new meaning in three different ways.

In one way, creativity can be understood as the experience of combining previously unrelated ideas in a new and unexpected fashion. The students demonstrated their significant creative skills by tackling those juxtapositions, whether it was through language or through digital media. The final student collaborations will be on display as a video installation this spring at the Fashion Park Mall across from the Puxi campus.

POEM 1

Glossy cocoons hang in threads
from which glistening dew shines;
A startling shade of emerald
gleams beneath the sun’s gaze,
melting into a waxy pool.

POEM 2

Ancient hands unraveling silk cords
dripping hints of saturated color.
Captured within the wooden loom,
before settling into rippling silk,
are recollections, or perhaps, dreams.

COMBINED POEM

Glossy cocoons hang in threads,
ancient hands unraveling silk cords
from which glistening dew shines,
dripping hints of saturated color.
A startling shade of emerald
captured within the wooden loom
gleams beneath the sun’s gaze
before settling into rippling silk.
Melting into a waxy pool
are recollections, or perhaps, dreams.

Poem Authors: Audrey Chen and Nicolas Guo, grade 12, Puxi campus



TEDxShanghaiAmericanSchool

BY SASHA RICH, GRADE 10, AND VIENNA THOMAS, GRADE 12, PUDONG CAMPUS

This past winter an audience of around one hundred parents, students, teachers, and community members gathered in Shanghai American School's brand new Performing Arts Center to usher in the first ever TEDx-ShanghaiAmericanSchool event. TED is a nonprofit organization that hosts annual conferences where innovators and creators speak about their fields of expertise and passions ranging anywhere from education to business, global and social issues to science. TEDx conferences, like ours, are independent events that are styled and curated to fit the TED format and rules.

Each conference has a guiding theme to help design and manage these inspiring events. With the theme "Envision," we had eight speakers ranging from students to local entrepreneurs that shared the stories about their visions and accomplishments. This event was organized by five SAS high school students and was started to provide a platform for sharing of ideas, particularly the ideas of students. With just over half of the night's presenters being students, it fulfilled this goal admirably. Four of the eight speakers were from Shanghai American School, including three students and one faculty member. We opened up the conference speaker application to members outside of our SAS community and found

three more amazing individuals who helped inspire our audience members.

What makes the inaugural TEDxShanghaiAmericanSchool event even more exceptional is that the entire event was completely run by students. Headed by two seniors, Vienna Thomas and Eri Kato, the team of five students worked tirelessly over the past year to launch this event. However, TEDxShanghaiAmericanSchool would not have been possible without the support of the school administration, members from the Institutional Advancement Department and the PAC and of course, Mr. Gertzfield, the faculty sponsor of TEDxShanghaiAmericanSchool. With their continued support, the 2016 TEDx team looks forward to launching another successful event in 2016.

Preparation for next year's TEDxShanghaiAmericanSchool event has already begun. If you are interested in getting involved, whether as a volunteer or a speaker, make sure to keep an eye on our website, www.tedxsaspu dong.org, for more updates!

People to Meet: Jonathan Zeng

Jonathan Zeng has been working for Shanghai American School for two years. In that short amount of time, he has become a vital part of our community. According to his boss, Ms. Helene Reiter, the Director of Human Resources, their office has already become so dependent on Jonathan's precise and hard work that they don't know what they would ever do without him! We sat down with him because we knew that our community needed to meet the man who has such an impact on our school from behind the scenes.



When did you start working at Shanghai American School?

I started working at SAS in February 2014.

Have you always been working in the job position you are in now?

The first year I worked at Shanghai American School, I was in the Admission Office on the Pudong campus. In March of last year I transferred to my current job position as a Junior HR Administrator in the Human Resources Office on the Puxi campus.

What is your typical day like?

The first thing I do every morning is review my email. Most of the inquiries I receive and need to answer are from current faculty members or new hires regarding their work permits and visas. After I get through my emails I will inspect any reports I have received regarding work permits and visas and will begin preparing these documents or creating the material for a new hire's work permit. This may not seem like much, but the School currently has more than six hundred foreign employees, many of whom have families who also need visas. Every new school year there will be 50 to 60 additional new hires joining our school. My job is to help every one of these employees get or renew their visa and work permits in a timely manner.

What do you think it takes to be successful at your job?

Being precise and careful is the key to being successful at my job.

The documents that I work with are submitted to the Chinese government, so I must ensure that there are not any errors. When I inspect a report I receive from an employee or new hire, I cannot miss any small details—every batch of visa and work permit renewal documents need to be precise and without error. Any small mistake on the paperwork can create problems for the School and the employee.

What do you like about your job?

I enjoy being able to help our employees get their long awaited visas. Their grateful smiles and words of thanks are, for me, the greatest recognition I can receive.

What types of people do you enjoy working with?

I enjoy working with all types of people. I like to be able to learn different things from different types of people so that I can gain more knowledge and experience.

How do you spend your free time?

I like travelling and reading. So if I have a holiday, I will travel with my family. During the week after work I enjoy reading, especially fiction books, and surfing the internet at home.

What is your dream?

I want to travel around the world with my family. I want to go to any country I have not traveled to already, especially Australia.



A Trophy for Trivia

BY ALAN LIANG, GRADE 12, PUDONG CAMPUS

In this work a eunuch exclaims, ‘Oh, what an affliction to be...’
BEEEEEP!

“*Candide*”, answered Larry Chen, confidently and astutely. The audience ‘golf-clapped’ as Pudong’s Quiz Bowl A team gained more ground in the finals of the Academic Bowl tournament at Brent International School in Manila.

In February, the SAS Pudong and Puxi Quiz Bowl teams managed to take all top four places at the Academic Bowl tournament. Pudong’s two teams came first and fourth and Puxi’s two teams came second and third. For my team, Team A, this victory did not come easily. We practiced for two hours each day at least two or three times a week. Practices had just the right mix of fun, work, and food to fully engage anyone present. “We labored every moment we could to keep up to the Captain’s [Alan Liang] standards,” said Larry, somewhat jokingly.

In a nutshell, quiz bowl is a game in which participants compete against other teams with electronic buzzers to answer questions. In the gameplay sense, it’s just like Jeopardy, but the similarities stop there. The Academic Bowl, sometimes referred to as Quiz Bowl, focuses more on academic disciplines: literature, science, math, history, fine arts, and the like, but there’s also a fun mix of geography, sports and entertainment, current events, and the occasional question on Led Zeppelin or Facebook thrown in.

Quiz bowl questions are written very intricately. They start off being ridiculously obscure so that only those who are exceptionally well versed on the subject can get the answer. For example, in Manila, our keen bird enthusiast Larry immediately got the answer “Parrot” from the first few words of the question, which was “The Kea is the only alpine species in this order...” Had he not known so early, the question would go on to become more easy and obvious and ultimately end with the line, “identify this order of birds that can imitate human speech.” Rodman Zhu, a junior at SAS Pudong and captain of Team B elaborated that “the Quiz Bowl allows you to put all those random facts you know to use, in a fun and entertaining way with your friends.”

“In the end it wasn’t just about taking first place, it was about the after school meetings, the fun memories and times we had, and the journey we took together,” said Rodman. He further noted, “Through quiz bowl, we’ve all become a good group of friends. We’ve had many team dinners and interesting pep talks and lot of weird inside jokes. After the competition, we sat in a hotel room singing *Let It Go* and Taylor Swift songs while playing Sid Meier’s *Civilization V*, which, by the way, is a very educational game for history.”



Curses and Ampullae of Lorenzini

BY MACKINLEY WANG-XU, GRADE 12, PUXI CAMPUS

To be honest, TGI Fridays isn't my favorite place. It's overpriced, the portion sizes are too big, and the shakes are too sweet. Yet for some inexplicable reason, every year I have been on the quiz bowl team we have gone to TGI Fridays in the Alabang Town Center in the Philippines. When the waiters see the table of ten chow down on greasy baby back ribs and buffalo wings, they know the team from Shanghai is back in town for the annual Academic Bowl Tournament at Brent International School in Manila.

For the more than ten years of the Academic Bowl's existence, the SAS Puxi team has only won the Brent tournament once. We call it the "Curse of Brent." This year, we again succumbed to this curse. Our campus sent out two teams to compete at the tournament and both teams were the only undefeated teams in the first four rounds of preliminaries. In the fifth round, our Team B made a surprising win over Pudong's Team A. Ultimately both teams took home both second (Puxi Team B) and third (Puxi Team A) place trophies. Although we returned to the cold Shanghainese atmosphere with more than fifty packs of dried mangos, we were disappointed to again return home without that championship trophy.

Many say I am over zealous about quiz bowl, which to some seems like mere meaningless trivia. Sure, we take the time to memorize all the nations capitals and all the particles in the standard model, and knowing what the Ampullae of Lorenzini is isn't what you call intellectual enrichment (by the way it's the

electro-sensory organ of a shark), but we are drawn to Puxi Quiz Team by the power of knowing. Each team member is used to being considered the "know-it-alls" and the "nerds." We relish in the fact that we know things that others don't. For us, putting this all into a tournament environment elicits our utmost excitement and enthusiasm.

We will begin next year starting from ground zero again, but we vow to break the curse of Brent in 2017 and come home with the championship.

Beware SAS Pudong, we will be back.

At Shanghai American School we have over 150 school clubs and activities for our students to take part in outside of the classroom. Students of all ages have the opportunity to participate in a variety of sports, art, and academic after school activities that support and complement our educational curriculum. While a trivia quiz club or a fashion club might seem trivial to some people, each one of these clubs serves a distinct purpose. By allowing our students to find creative outlets for their passions and talents, we are further instilling in them a lifelong passion for learning and the courage to live their dreams.



Actions Speak Louder than Words

BY THE EAGLE REVIEW STAFF

It was cold. And windy. The high school students from Shanghai American School were shivering from head to foot as they huddled around each other in a tight group. They chattered happily amongst themselves and waited anxiously to hand out the Christmas gifts they had been working on raising funds for over the past semester. The local Shanghai school they were at had no heating, so they knew that they were in for a bitterly cold afternoon. But as it all began, the warmth of the smiles from the local elementary school students and the SAS high school students was enough to warm anyone nearby.

As our students handed out gifts to the children in a handful of classrooms, the local children excitedly shouted in Mandarin as they showed their new presents off to anyone who would pay attention. A scarf. Mittens. A doll. Pencils. Erasers. Notebooks. Books. Stickers. Simple gifts that were meant to remind them of one big truth—they are important, they are worthy of special treatment, and there are people out in this world, other than their family, who do care about them—our students.

The gesture of caring is a seemingly simple action. But in reality, it is not. Life is busy, complicated, and sometimes simply doing your job (or schoolwork) and taking care of your family is enough to make your head spin. Caring for others takes time, resources, both monetary and physical, and can drain you emotionally. But

our students, on top of homework, applying for colleges, studying for tests, being involved in clubs, and navigating the complicated world of high school and late adolescence, had taken the time to meet together, raise funds, work directly with The Giving Tree organization, and take an afternoon out of their busy schedule to hand deliver presents to amazing little children just a few miles away from their own school who live very different lives than they do. No, a few pencils and a coat do not lift these children and their families out of poverty, but it does make a difference. Studies have shown that the impact of a child knowing they are cared for and valued as a human being is significant and impacts them in tangible ways that effect their future.

That day our students put their own family's values and our School's mission to work. They did not mindlessly repeat what they had been taught at home or in school. In fact, very few words were spoken. Words weren't needed that day, for as the old adage goes, the students' actions spoke far louder than their words. And that is what SAS is about—teaching our students how to impact the world around them with their passion for learning, their integrity and compassion, and their courage to live their dreams. In doing so we know that they will help others around them pursue their own passion for learning, desire to be more compassionate, and be given a boost in their courage to pursue their own dreams.



The Magic of Jacaranda

BY JOHN PARK, GRADE 9, AND JULIANNE WU, GRADE 12, PUXI CAMPUS

Jacaranda is a sanctuary for the students. The first step into the courtyard will reveal all,” said John Park, grade 9.

When the gates swung open, we walked through donning our Chitenje, Malawian traditional skirts and individually carved jacaranda tree necklaces, the symbol of the school. When the gates opened, we did not know what to expect or what exactly was expected of us. It turned out, we didn’t have to.

A rich chorus of “Welcome to Jacaranda!” immediately washed over us as we walked a wide path lined with clapping students full of joy just to see us. They were not afraid to rush over, hold our hands, and ask, “May I be your friend?”

Then came the introductory assembly showcasing the talents of the Jacaranda students. Swaying and clapping to the beat of the djembe, the traditional drum of Malawi, the choir members belted out perfect harmonies, mesmerizing the audience with the sheer life of their song. The traditional and hip hop dancers likewise stunned us with their complexity, grace, and strength. A highlight was when the “Floor Steppers” gymnastics group ended their performance not with a human pyramid, but a human bicycle. Throughout the week, the talents and passionate dreams and ambitions of these students continued to surprise us. Ms. Marie Da Silva and her husband Mr. Luc Deschamps, the executive director of Jacaranda, were always encouraging the students to live their dreams while making sure they felt safe.

Some people may think of Jacaranda as merely a service trip. After all, service projects are often completed by Shanghai Ameri-

can School students when we are there. During our trip we helped repair one of the houses for a Jacaranda worker. But Jacaranda is also a cultural exchange trip where we interact with the children from Jacaranda both in and outside of their classrooms. Mr. Burke, our teacher and leader for our trip, expressed it perfectly in his Malawian news interview when he said, “We come here to learn from the students and have the students learn from us.”

In classrooms, we were tremendously involved. In one of the English classes, we grouped together and took turns reading paragraphs while making jokes with each other. Afterwards, clusters of hands sprung up and fingers clicked as everyone vied to share their thoughts with their classmates. During breaks we also did a lot of activities with Jacaranda students. All in one day we could be spontaneously painting together, juggling guavas, and then playing djembe, guitar, basketball, soccer, chess, and the Chinese spinning top. In the midst of all this, someone might start drumming and singing. Very quickly, the rest of us would be swept along.

What makes Jacaranda so special is that it has a strong community. “Everyone here is my brother or sister,” says Vincent, who is in grade 10. The students are open, genuine, and friendly. Many of the students even wrote individual handwritten letters to share how they felt about us coming to visit them.

When the time came for the SAS Jacaranda team to leave, each member agreed that there was an indescribable “magic” at the school that changed us. Julianne Wu, grade 12 states, “We came here expecting to contribute. By the time we leave, however, we realize they gave us more than we could put into words.”

20 Questions with Ann Hefte

Ms. Ann Hefte is an art teacher in the Puxi middle school and has been working at Shanghai American School for 12 years. Any student or faculty member that has crossed paths with Ms. Hefte knows that she is passionate about her students, art, and her family. Her husband, Mr. Mark Hefte, teaches social studies at the middle school, and they have two daughters, Hayden '25 and Emerson '26. Ann and Mark grew up in Madison, Wisconsin. In fact, they were born on the same day in the same hospital, and they were best friends as children and high school sweethearts! We sat down with Ms. Hefte to get to know a little more about her.



1. Are you reading anything good right now?

I just finished *The Global Expatriate's Guide to Investing* by Andrew Hallam and found it very informative. For fun, I've just finished reading *The Woman in the Photograph* by Dana Gynther.

2. What musical artist(s) are you listening to right now?

Ha! I listen to music all day long in the art room, for workouts after school, and at dinner with my family, but my tastes vary according to what I'm doing. It can be anything from Bon Iver, to Kidz Bop 31 (for my daughter), to hip hop. I'm never without music.

3. What is the most interesting place you have travelled?

I consider every new place interesting for its colors, smells, sights, people, customs, and food! But my favorite so far is Bali!

4. What country would you most like to live in?

France

5. If you could be any fictional character, who would you be?

Fictional? I don't know! If I could be a real person, it would be Coco Chanel.

6. What makes you laugh?

Emme, my youngest daughter, my students, and hip hop lyrics.

7. What are the three things you feel you cannot live without?

My family. Cheese. Art and music.

8. Who do you most admire?

My mom. She's the mother, learner, and woman I want to be when I grow up.

9. What do you like to do on the weekends?

I like to read in bed before I get up, do something active with my

family, play around in our art room, chat with my girlfriends, and go on dates with my husband.

10. What is your biggest pet peeve?

Whining.

11. What word or phrase do you most overuse?

"I love this song!"

12. What quality do you most admire in a student?

Bravery.

13. What quality do you most admire in a teacher?

Patience.

14. What is your most memorable gift from a student?

A very sweet letter.

15. What is the biggest change you would want to make to the educational system?

I'm from the U.S. and I would love for education to become a top priority. I would love for students in the States to have access to a fraction of the opportunities our students have at SAS.

16. If you were not a teacher, what would you be doing instead?

Designing!

17. What is the biggest lesson you've learned at SAS?

We don't know what the future holds, but if we look at each child in front of us as an invaluable piece of that future and do our best by them, then we are heading in the right direction.

18. Which educator in your own life affected you the most in a positive way?

Mr. Richard Mueller (*not our Head of School, funny coincidence*). He called me out in grade 6 for being an adolescent brat. Thankfully we're still friends. And I'm still in middle school. Maybe less of a brat though.

19. What do you see as the biggest challenge for SAS during the next five years?

Matching our daily practice to our philosophical beliefs. Striving to live what we value.

20. What should we ask the next person who takes this quiz?

What do we not know about you that would surprise us?



Bakers with a Cause

Ladies and gentlemen, the announcements in the middle school did not lie. We really did have the best bake sale ever when Ms. Leah Hefte's home base sold a wide variety of cookies, cupcakes, and baked goods. The delicious treats may have been reason enough for some people to believe that it truly was the best bake sale, but there's more. Our bake sale was to raise money to help show our appreciation to the people who keep our school the amazing place it is. You guessed it, the support staff at SAS.

The whole middle school worked together to feed the support staff lunch and fill bags with goodies for them to share with their families during the holiday season. Could there be a better time to give back to our amazing support staff than Chinese New Year? I didn't think so. Ms. Hefte and her home base pulled off the best bake sale ever—and learned a lot about gratitude in the process.

— By Lily Heald, Grade 6, Puxi campus

STUDENT VOICES

Sarah

“Art. You can have your own creative space when you do art. That’s why I like it. You just put your mind to the paper and have fun.”



“Science. Science is such a diverse subject, so you can choose what you think you’re best at and what you want to do in the future.”



Thomas

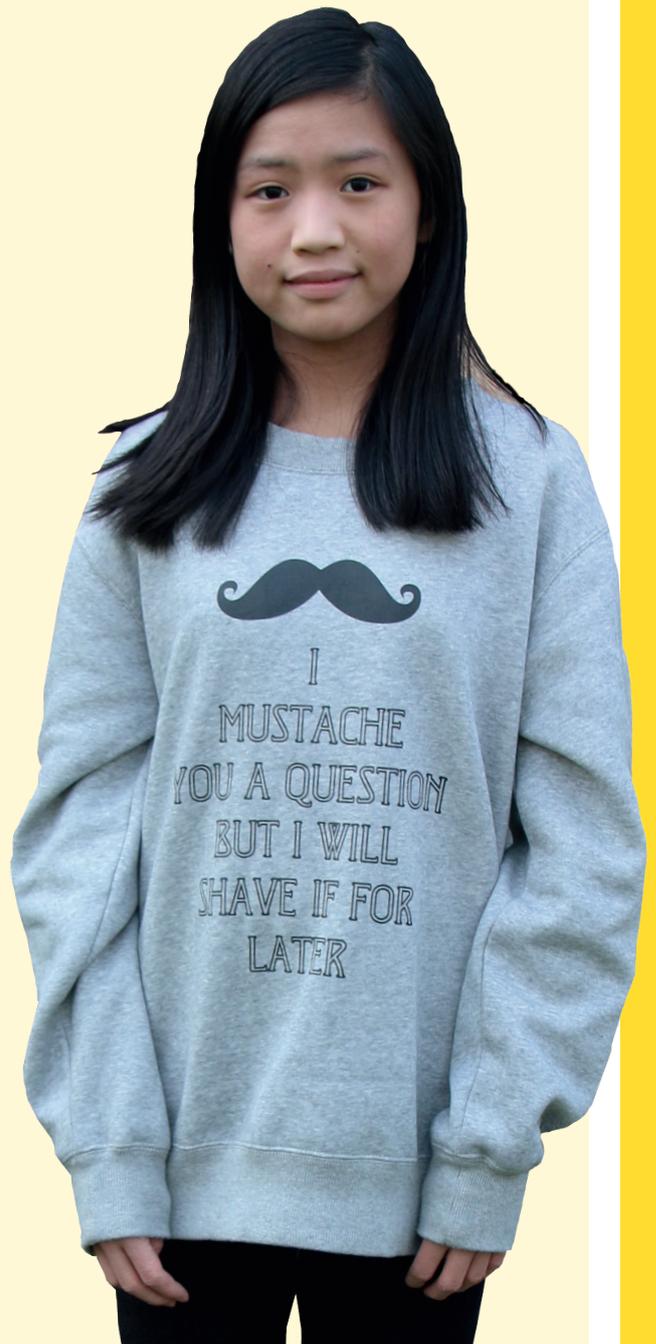
From Design to Science, we've covered the subjects that make DREAMS the robust learning initiative that it is. During the afternoon exploratory class on the Puxi campus, we reached out to some of our middle school students and asked them what they liked most about DREAMS.

Andy

“Design. I really like drawing and designing things—especially sketching buildings and architecture, because in the future, I want to be an architect.”



“Art and Science. I like Art because I like expressing my ideas on paper and I like drawing the nature around us. I also really like Science!”



Cherry

From The Archives



The Lion Dance

Every year the Shanghai American School community celebrates Chinese New Year with divisional festivals, celebrations, performances, and, of course, the famous lion and dragon dances! These longstanding traditions are a vital part of celebrating our Chinese heritage and have been enjoyed by our community for many years. The lion dance pictured above was taken in 2000 on our Puxi campus.



The Eagle Review

IN THE NEXT ISSUE

We will be celebrating our love for Shanghai American School and looking back on the impact that Richard W. Mueller has had during his three years as our Head of School.

Shanghai American School inspires in all students:
上海美国学校激励并培养所有的学生:

*A **lifelong passion** for learning*
终身学习的热情

*A commitment to act with **integrity** and **compassion***
诚信与仁爱的信念

*The courage to **live their dreams.***
追求梦想的勇气。



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