



ACS Athens
Ethos

Fall 2019, Vol.14

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ACS Athens

American Community Schools

Empowering individuals to transform the world
as architects of their own learning

Our Mission:

ACS Athens is a student-centered international school, embracing American educational philosophy, principles and values. Through excellence in teaching and diverse educational experiences, ACS Athens challenges all students to realize their unique potential: academically, intellectually, socially and ethically - to thrive as responsible global citizens.

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Letter from the Editor

by Leda Tsoukia

3**Q&A with the President****8****Welcome Greetings****10****An Educator's Perspective on Growth Mindset**

by Eleftheria Maratou and Christina Venos

16**Enriching Children's Lives through Play**

by Efthymia Karatopouzi

19**Preparing JK-5 Teachers for Instruction Through NGSS Practices**

by Sophia Moros, Sana Kassem, Dr. About Cherif

22**Behind the Scenes of Creating Ongoing Workshops for Inquiry-Based Learning**

by Sana Kassem, Dr. Abour Cherif, Sophia Moros

27**Using Paper Tubes to Engage Students in Learning Science and Math**

by Dr. Abour Cherif, Sana Kassem, Dr. Stefanos Gialamas

30**Inquiry-based Learning and Live Exhibits in 4th Grade**

by Lia Sinouris, Iliana Eleftheriou, Evi Evloyias

36**MS Science Club @ the Athens Science Festival**

by Christina Bakoyannis

40**WHAT IF.... I could make people disappear?**

by Themis Soukakos

42**Researching and Collaborating for the Best Fit Instructional Models**

by Dora Andrikopoulos

45**Middle School Graduation**

by Dr. Peggy Pelonis

48**Middle School Service Learning 2018-2019**

by Christina Bakoyannis

52**Lessons of Hope from the Rainforest**

by Annie Angelides

58**What is Mindfulness?**

by Patrick G. Karantinos

60**The Kínonos (Κουωνός) Club and the years ahead...**

by Lydia Pinirou

64**United Nations SRC Salus Club-Panel holds discussion on Transgender Care & Society**

by Dafni Anesti

66**Connecting the seemingly Unconnected and Embracing the Unembraced**

by George Maltas

68**Fourth Annual Literacy Festival**

by Bobby Zervas

72**It all started with a question: The TED-Ed Club of ACS Athens**

by Christina Rocha and Angela Zamanis

76**Benefits of learning a Classical Language in Modern World**

by Fotini Chatziantoniou

80**The S.T.E.A.M. course at ACS Athens Artificial Intelligence, and a Space Experiment**

by Dr. Antonis Karambelas

84**IB Visual Arts Exhibition**

by Sophia Soseilos

88**Student Life on ACS Athens Campus & Beyond**

by Theodora Panteli

92**The amazing Class of 2019!**

by Dafni Anesti and Anna Makris

94**Academy Commencement Ceremony 2019**

by Dr. Peggy Pelonis

96**Accreditation: Strategic Planning Meeting**

by Mary-Ann Augoustatos, Stavi Dimas,

Dr. Antonis Karambelas

98**Research-Based Balanced Literacy Approach**

by Sophia Moros and Sophia Tsinakis

100**The ECIS Student Learning Support Conference**

by Chris Perakis

103**Dr. Stefanos Gialamas Receives 2019 Ideagen Global Leadership Award**

by Helen Maravegias

104**The ACS Athens Advisory Council**

by Dr. Peggy Pelonis

106**Superior Court Judge Stephanie Joannides, the honoree at the 2nd ACS Athens Global Alumni Achievement Awards Gala**

by Helen Maravegias

108**ACS Athens Alumni Awards Event in Washington DC**

by Chris Perakis

110**A student from France shares his thoughts about ACS Athens**

by George-Aimé Duquin

112**ACS Athens Summer Youth Camp: It's an established tradition**

by Angelos Dimitropoulos

113**Improving and transforming Facilities**

by Stavros Tzanetakos

116



Letter from the editor

The K-Graduate Education paradigm:

Bridging the gap, developing a new Path

by **Leda Tsoukia, Editor in Chief,
ACS Athens Creative/Art Coordinator**

"Without collaboration, our growth is limited to our own perspectives"

Robert John Meehan, American Educator

It was less than two years ago when Ethos magazine celebrated our school's goal in expanding our horizons, reaching more young people and creating a global environment of collaborations, through a plethora of fascinating articles dedicated to all these partnerships that had taken place over the last few years with Universities around the world.

In the Spring 2017 issue, Ethos was already emphasizing our school's unique mindset in believing that fostering collaboration instead of competition is a unique catalyst for progress.

Since then, and now more than ever, this path has proven that we can go so much further if we work together, if we are open not only to Learning from other educational entities but also willing to share our knowledge and experience. It is a radical broad-mind-

ed approach in educating young people that we hope will set the example for more partnerships and collaborations.

In order to offer the best educational experience and prepare our kids for the next step towards Higher Education, we always had these questions in mind:

What do we need to better prepare our students for College?

What are the top qualities Universities are looking for in student applicants?

How can we help our teachers become better agents of knowledge for young students?

Having rigorously worked for so many years to answer these questions through actions, ACS Athens has reached ambitious milestones, such as the Sustaining Excellence protocol, recognizing it as one of the most prestigious international schools in the world.

Still, there is so much more to attain!

We are now marching further, turning the tables around and asking New Questions:

How can Universities benefit from K-12 Schools?

What can we contribute through our numerous synergies and partnerships with Colleges, Institutions and different kind of Organizations?

We see ourselves through the mirror of higher education and strive to form collaborations serving both sides, by absorbing knowledge but also by sharing our expertise and best practices with them.

Our vision is a new kind of Learning for the 21st century enhanced by collaborations such as those already established with Widener University, Pinewood School of Thessaloniki, Hisar School of Turkey, the Home Project and others, developing a new pathway that will benefit everyone.

First and foremost: **the Student.**

8

Q&A with the
President

27

Behind the Scenes
of Creating Ongoing
Workshops for
Inquiry-Based
Learning

36

Inquiry-based
Learning and Live
Exhibits in 4th
Grade

68

Connecting
the seemingly
Unconnected
and Embracing
the Unembraced

76

It all started with a
question:
TED-Ed Club of
ACS Athens

84

The S.T.E.A.M.
course at ACS
Athens
Artificial
Intelligence

100

Research-Based
Balanced Literacy
Approach

104

Dr. Stefanos
Gialamas Receives
The 2019 Ideagen
Global Leadership
Award



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Bridging the gap,





Developing a new path



The K-Graduate Education Paradigm

Q&A with the President, Dr. Stefanos Gialamas

Q: ACS Athens has already established the Morfosis Educational Paradigm as a cornerstone guiding model for preparing students to become tomorrow's Leaders and serve Humanity with Ethos. What is the next step? Where do we go from here?

A: The next step is to continue the path towards spreading our Global Morfosis educational paradigm globally, make it known domestically and internationally so that K-12 academic institutions would want to adopt it. This can be achieved by having students who major in Education, experience the ACS Athens educational paradigm, including the authentic teaching and learning methodology, and i²Flex by spending several weeks to a whole semester at ACS Athens as part of their practicum.

ACS Athens has developed partnerships with US universities in order to offer joint graduate courses (Masters in Education, Doctorate in Education and Doctorate in Education & Leadership). The delivery of the courses will be diverse and four of the courses will be offered at the ACS Athens campus with qualified ACS Athens faculty as instructors. These faculty members not only hold Doctoral degrees, but also have been active researchers and outstanding educators both inside and outside the classroom. Visiting graduate students from the US are currently spending a consid-

erable amount of time conducting research or action research in a topic relevant to the operational and academic strengths of ACS Athens.

Q: The effort to bridge the gap between K-12 and Higher Education is a great challenge. Does that challenge shape the school's vision differently?

A: We want to bridge the gap between K-12 and higher education learning by paving new pathways for partnerships and collaborations between K-12 and higher education institutions. This way, higher education institutions will gain valuable knowledge from K-12 institutions, thus preparing tomorrow's educators to become impactful mentors for an exponentially increasing K-12 student population.

As higher education institutions are redesigning their curriculum and teaching & learning methodologies to provide the best educational experience to their undergraduate students, they could benefit significantly from the dialogue and collaboration with K-12 educators. Moreover, colleges, offering degrees in Education, are essentially preparing a large number of their students to become future K-12 educators. These young people have a lot to learn from K-12 highly qualified faculty and leaders.

In particular here, at ACS Athens, we have many of our educators and leaders who, either have been or could be professors and leaders in colleges and universities. The past ten years at ACS Athens faculty and administration have published more than 350 articles and more than 15 books and manuals.

Q: Why is it so essential to bring different Institutions from K-12 and Higher Education closer together? How can we accomplish such a goal, and who is going to benefit from that?

A: ACS Athens has developed strategic partnerships with exceptional K-12 institutions from around the world. Through these collaborations, we have established many joint innovative programs for both students and faculty. This way, we also learn from the best K-12 institutions from around the world, and these other institutions learn from us. This way, we have established and continue to establish vertical and horizontal learning - creating new knowledge. The benefit is holistic and encompasses all involved.

Q: Choosing such a pathway for enriching everyone's educational experience, is a challenging task, and is undoubtedly filled with obstacles. What are the most critical challenges do you think the school will face in order to accomplish that?

A: One of the significant challenges for any academic institution K-12 or higher Education is CHANGE.

Change is the apparent challenge; however, over the past 14 years, we have developed our own approach to embracing change. We are not eager to judge and also not eager to determine whether innovative programs

are successful or not. Finally, we engage all constituencies to become architects of their own learning.

Change requires innovative leadership, a clear vision, the efficient and effective inspiration of all members of the community to understand, accept and finally internalize the new vision which will lead the institution and its community to a new destination. This vision requires that all students are empowered to reach their maximum ability by becoming architects of their own learning and their own development of their personal and professional identity.

They must dream their own dreams, strive to make them a reality, not following the dreams of others. Students must define and become authors of their own life book. They should not be "commissioned" by anyone to write about their life if it does not represent them.

Every child is authentic by birth, but it is slowly evolving, through the traditional educational systems, into a person without a clear identity, who is absorbed easily into society. The child then follows a predictable behavior fulfilling the dreams of others who dictate its path. This makes it easier for society to manage the expected actions of individuals that have stopped being authentic. This authenticity is what we strive for to foster, in all individuals in our community of learners.

Q: Could you describe examples that show how the school is ready to move into this new pathway of connecting K-12 and Higher Education, by providing a challenging and fulfilling educational experience for all students and faculty?

A: I always believed that significant K-12 institutions could foster an environment that inspires their faculty to create new and exciting knowledge.

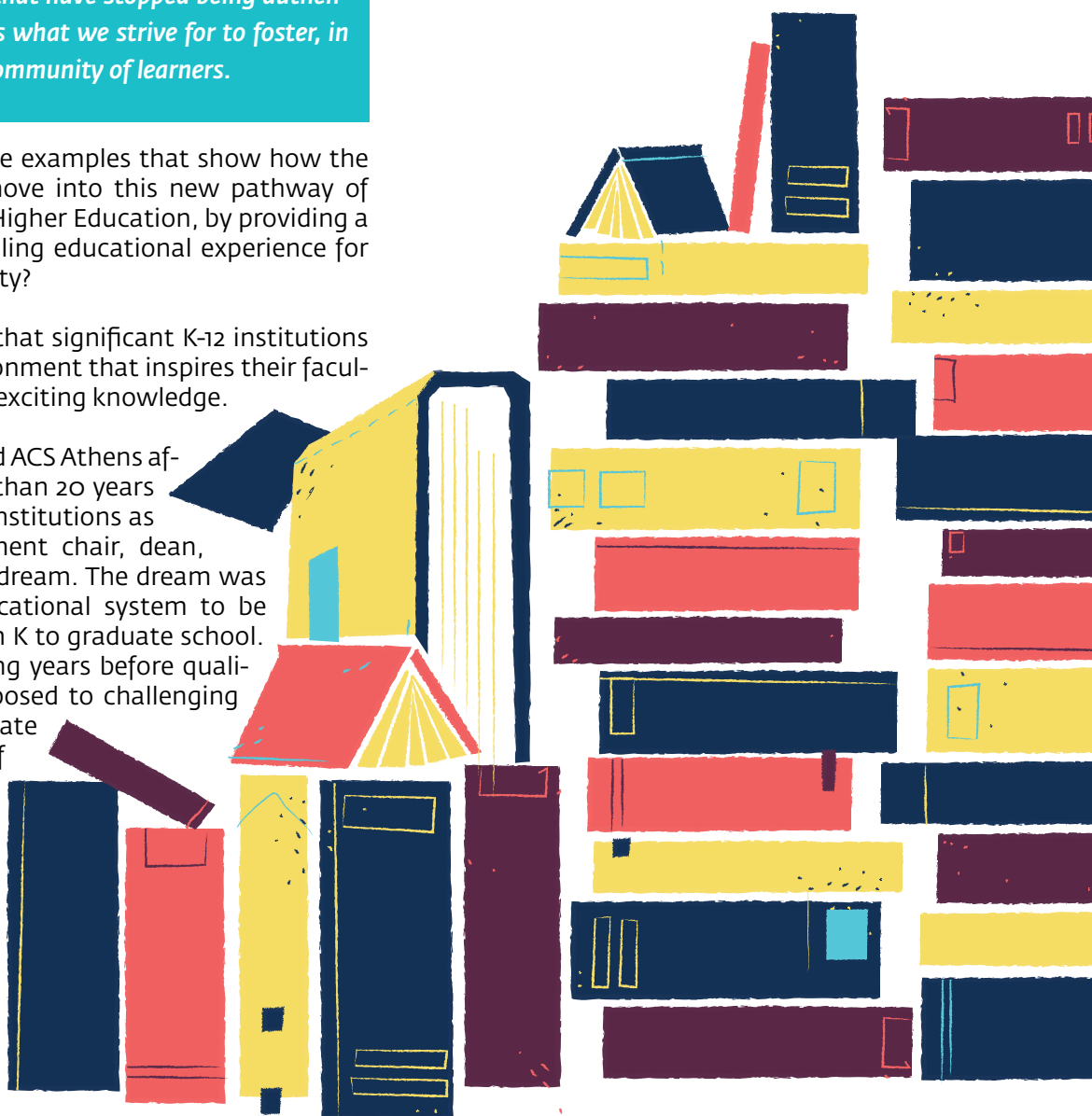
In 2005, when I joined ACS Athens after serving for more than 20 years in higher education institutions as a professor, department chair, dean, and provost, I had a dream. The dream was to redesign the educational system to be without barriers from K to graduate school. I believe those waiting years before qualified students are exposed to challenging concepts in graduate school is a waste of time. Students learn at different speeds and grow in unique ways. They have diverse interests and mature at their own pace.

I have seen 10-year-old students mas-

tering concepts traditionally taught at the university and university students having a hard time mastering concepts taught in elementary school.

Ancient Greek philosophers, scientists, and mathematicians enhanced their learning and were able to discover and shape almost all areas of learning by collaborating with people around Greece. They traveled to the known world of their time, to learn from others and also to share their knowledge, to determine whether they were accurate or not.

Today it is easier and more convenient to travel, meet other people, share experiences, and become exposed to new knowledge. Our goal is to develop significant and mutually beneficial partnerships with excellent K-12 institutions. We are excited and grateful for the collaborations we have established with institutions such as the Hisar School from Istanbul, the Chapin School in NYC, the Morgan Park Academy in Chicago, the Pinewood School in Thessaloniki and the American Farm School, also in Thessaloniki. These partnerships and many more we are planning are the catalyst for the path we attempt to forge towards bridging the K-16 Education of the 21st century.





Welcome!

Greetings from Dr. Peggy Pelonis, the new Vice President

by Dr. Peggy Pelonis, Vice President

It is truly an honor to be serving as ACS Athens Vice President among such outstanding leaders and faculty. I am particularly excited to welcome the new leadership and faculty to ACS Athens and into their roles, and I believe that together, we can provide the best possible platform for students to learn and grow. The innovative projects led by President Gialamas make learning fun and intriguing, not only for students but for all those who abide by the belief that learning is a lifelong process. Within ACS Athens I have had the pleasure to serve as Counselor, Faculty, Director and Dean, roles that provided me with a unique opportunity to know the school, students, and faculty from multiple perspectives. Likewise serving on the Executive Council has placed me in the unique position to be part of the transformation of ACS Athens and a co-developer of its vision and strategy led by Dr. Gialamas. Likewise, leading the Strategic Planning of the school and having served on and lead Middle States accreditation teams for a variety of schools worldwide has positioned me to see the bigger picture of education. Ongoing collaborations with numerous universities and educational consultants across the globe allow me to stay in touch with current educational trends and supports the effort being made to bridge the gap between secondary and higher education. My work in psychology internationally however, serves as a gentle reminder that

mental health is vital in today's society. The multiple, unwavering and accelerated changes that take place on a daily basis can leave one depleted of energy and lacking in meaningful living. Thus, I am particularly committed to guiding students to not only develop the skills and knowledge necessary to succeed in a competitive society but to do so while being mentally and physically healthy, resilient and consciously maintaining balanced lifestyles.

As the leadership team continuously work to better align curriculum and improve teaching methodologies, we do so with the student's well being at the center of our beliefs. Furthermore, continuing to develop a meaningful Citizenship model that allows students to see their position within their community and make choices that encourage thriving not only on a personal level but on a collective level is most necessary. Helping students evolve into Conscious Citizens ensures the sustainability of the planet and the wellbeing of society because it comes with the understanding that we are all an important and integral part of our environment and that every choice we make can either put us closer to collective well being or to detrimental outcomes. Thus, individuals who develop positive, healthy, collaborative, contributive mindsets can ultimately use their knowledge and skillset for the benefit of society and sustainable living.

I am most grateful to have been the parent of a student at ACS Athens. I saw the development of a young person from within the school walls and from multiple perspectives. While the years were not lacking in struggle, conflict, and doubt, I can confidently say that ACS Athens has been nothing short of a blessing. The years ahead will see the skills attained come to further fruition and I am very much looking forward to that.

The academic year 2019-2020 promises to be an exciting year for all stakeholders as we continue to develop programs and provide opportunities that offer students the chance to develop who they want to be. I hope to meet all of you and to have the opportunity to share thoughts and ideas.

My best to all for the coming year.





Welcome!

Greetings from Dr. Jo Ella Eaglin Siuda, the new Dean of Academic Affairs & Services

by Dr. Jo Ella Eaglin Siuda,
Dean of Academic Affairs & Services

I firmly believe that education is the chief tool that can alter, or shape, a life. I can say this, for I have seen it not only change the direction of my life but the lives of so many others that I have had the privilege to encounter in the classroom.

Teaching is a dynamic situation, one in which the Teacher and the Student work in unison to bring about change. This change is seen over the course of time, as the Student encounters novel situations from the very instant they enter the classroom. With that, the reliance comes from the Teacher that he or she will provide these teachable moments to their young underlings.

My philosophy on education is quite Deweyan in nature, as I look at these moments as a means to bring out the truest self of the student, their most holistic self. I want to see each student be who they can be, with limitations kept at a minimum, awareness of their individuality at the forefront, and integration of various disciplines there in place to support them.

I feel that ACS Athens is firmly rooted in these above tenets. This is my rationale for coming here from

abroad. I spent many years working with K-12 students, faculty, and administrators, all with the desire to implement inclusion, awareness, and integration in the educational system here in the United States. Though somewhat an arduous task, I knew it was right and kept working to make these ideals evidenced in the classrooms.

It is here now, with ACS Athens, that I can truly manifest these concepts, and support our students, our faculty, and our administrators. I am honored to be here, a place where I welcome change, the kind of change that can place the student in the best possible situation to become all they can be. It is here in ACS Athens that I know we will evidence that student becoming, generating the holistic individual they were meant to be.





Welcome!

Greetings from David Nelson, the new Academy Principal

by David Nelson, Academy Principal

At the American Community Schools of Athens, we emphasize that learning is not a solo venture and we strive to create the strongest community in support of all students. As I transition into the role as Principal of the Academy I am extremely proud to be working with our talented faculty and supportive staff, as we seek to engage all students in their learning with inquiry, dialogue, motivation, diligence, and collaboration. We kick off the year celebrating the passions and motivations of our students, faculty, and parents as we come together to build an even stronger sense of community for all learners with efficacy and agency. ACS Athens is rich in educational and co-curricular activities, and I urge all students to explore new interests and challenges in clubs, sports, student government, forensics, model united nations, art, music, the incubator, and more.

Above all, I believe that the rewards of lived experiences go to those who work hard, play a role in the wider community, support one another, persist when things get most difficult, and take time to reflect and celebrate successes with those around us.

I extend a warm welcome to our newest students,

families, and faculty as they join in the ACS Athens Academy community of learners.

Welcome everyone to the ACS Athens Academy and to the 2019-20 school year!





Welcome!

Greetings from Dr. Andreas Tsokos, the new IB/AP Programs Director

by Dr. Andreas Tsokos, IB/AP Director

After 30 years of teaching in the IB program, I am excited to take on the role of IB and AP Director at ACS Athens. I want to continue the work of improving and strengthening the programs - something that Julia Tokatlidou has done so well in the last 11 years. I am thrilled to lead perhaps the most well qualified IB faculty in any IB school and work to make the IB program at ACS one of the best in the world. My first objective is to enforce the internal deadlines for extended essays and internal assessment and to make sure that students are well prepared to undertake these tasks. Theory of Knowledge (TOK) is an integral part of the IB program, and I intend to work with the IB faculty to ensure that teachers use the expertise in their subjects to contribute to the teaching of this course. Finally, I intend to explore the very many interesting courses available in the IB program and select new courses that would benefit our students at ACS.





Welcome!

Greetings from Melissa George, the new Middle School Principal

by Melissa George, Middle School Principal

I am delighted and honored to join ACS Athens as the new Middle School Principal this year. Bringing my experience and knowledge about middle level education, I am excited for the opportunity to learn and contribute to the unique ACS community. My aim is to help the school dream big about seeking opportunities for growth in the mission to “challenge all students to realize their unique potential: academically, intellectually, socially and ethically — to thrive as responsible global citizens”. One of the most important aspects of middle school is for teachers and administrators to empower students to take risks and responsibility so that they can discover who they are. Indeed, this is a crucial stage in their social, emotional and academic development because they are building a foundation of important concepts and skills for more focused and specialized learning later on. Young adolescents benefit from being surrounded by caring educators who can support and challenge them as individuals in their development. I look forward to my partnership with teachers, parents, students and administrators at ACS.





Welcome!

Greetings from Valeria Laitinen, the new Elementary School Vice Principal

by Valeria Laitinen, Elementary School Vice Principal

I am honored to join the ACS Athens leadership team this year as elementary Vice-Principal. I look forward to getting to know all of our elementary students and parents and to working with the dynamic elementary grade-level teams and specialist teachers. Together we will continue to promote growth mindsets in our students to encourage them to take academic risks and try new things within our framework of the ACS Athens 3Rs: Be Respectful, Be Responsible, Be Ready. Also, I am excited to support our ongoing progress in implementing the Reading and Writing Workshop and the Next Generation Science Standards (NGSS). I anticipate we will have a wonderful year together at ACS Athens.



Elementary adventures

An Educator's Perspective on Growth Mindset

by Eleftheria Maratou and Christina Venos
Elementary School Faculty

"I'm not good at this."

"No! I don't want to try the enrichment packet."

"I'll never understand this subject."

These are all phrases that we have heard students utter. Phrases they have come to say automatically when faced with academic work that they find challenging. These phrases are examples of when a person believes that what they know is it, and they cannot learn more or advance (move forward). People who say these phrases are said to have a fixed mindset.

A person with a fixed mindset might give up easily and avoid challenges. They may also feel threatened by the success of others. A person with a growth mindset, however, will accept work that is challenging and give their best effort to accomplish the task at hand. If they make a mistake or fail, they won't give up, but instead, they will try again and learn where they went wrong. They will give their best effort and build strategies that will help them to become successful at a task.



Ms Maratou and Ms Venos at the NESAs workshop, Spring 2019



Presenting at the NESAs workshop, Spring 2019

Carol Dweck, a professor of Psychology at Stanford University and author of the book *Mindset: The New Psychology of Success* states: "In a fixed mindset students believe their basic abilities, their intelligence, their talents, are just fixed traits. They have a certain amount, and that's that, and then their goal becomes to look smart all the time and never look dumb. In a growth mindset, students understand that their talents and abilities can be developed through effort, good teaching, and persistence. They don't necessarily think everyone's the same or anyone can be Einstein, but they believe everyone can get smarter if they work at it."

The language we use as educators is very important in the way children perceive themselves and their learning. It impacts their understanding of success and failure. Praising students for their hard work, effort, persistence, and the process that they've engaged in helps them to develop a growth potential. We have to show children that failure should be embraced as an opportunity to learn and improve their abilities. We have to be conscious of how we respond to children's performance, be it academic or not. We should never say, "You're so smart." Instead, we could say: "You have really improved in ...", "I like the way you used steps to solve.....", "I can tell you tried your best because...", "Thank you for making that mistake...I think others

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Monday, September 23, 2019

Queen's Birthday (WA Australia)

may have too, so let's look at the steps you took and how you got to your answer." Doing this will show them they should have patience and "grit" (determination and resolve). For example, a student in my 5th-grade classroom solved a math problem on the board, and the answer she got wasn't correct. I asked the class if anyone else got the problem wrong and some hands went up. So we looked at the steps taken to solve it, and we found where the mistake was made. Doing this and understanding that 'ok we got a wrong answer but let's see what happened' encourages students to see that they have just to take the time and go back and this way see where they made their mistake. It is very important for students to understand the vital importance of not giving up and to keep trying. We have to educate children on what to do if they face something that they perceive as difficult or hard. We should teach them strategies which will be useful in solving problems.

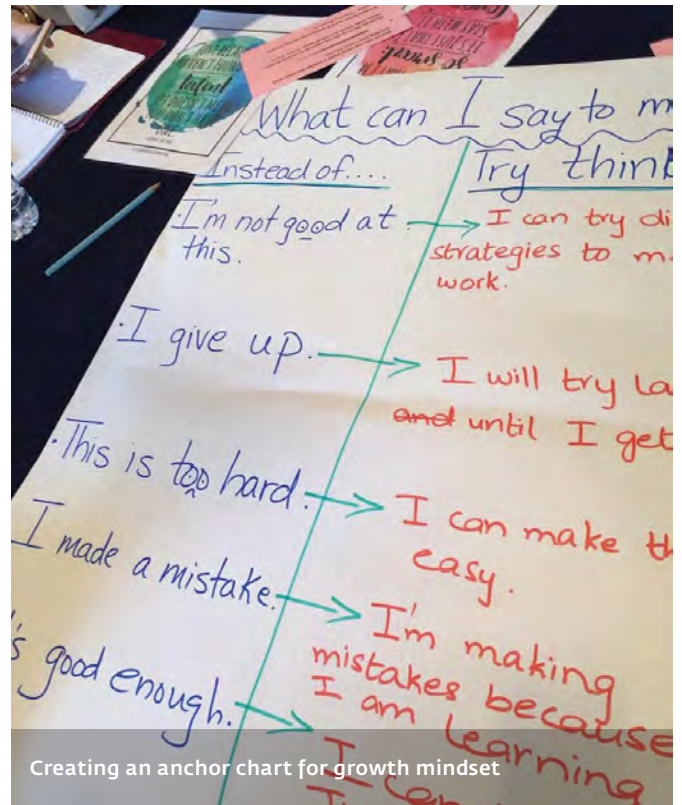
The language children use has to change. They should say or think along the lines of..."What am I missing?" "How can I go about solving this differently?" "I haven't got it yet.", "Tackling this challenge will make my brain grow!".

A great example to show a growth mindset is a scientist. I showed a video to my 5th-grade class on a scientist who kept on failing, but he was analyzing where he may have made errors, and he was successful in the end. Scientists conduct so many experiments. They fail a lot, but they keep going. Students can also relate to athletes and the sports that they do. How do you make progress in a sport? You practice often. You may lose a game but, does that stop you? No! How do you make progress academically? You practice and apply strategies you have learned. Should you give up? Of course not.

There have been many times in the classroom during the subject of math when there is perseverance in solving problems, and my students have said, "Well that wasn't hard," and my question to them is "Who told you math was hard?" This makes them stop and think, and they cannot answer because a subject like math is perceived as difficult and that not all children are good at maths. However, understanding that they can go about a subject like math with a growth mindset encourages them and their growth in academics.

A growth mindset culture should be cultivated in the classroom. When children think positively, they build confidence to rely on themselves, and their abilities to try and learn new things. Educators address students' individualities by building relationships with students and establishing a positive classroom environment by developing a growth mindset language. It is important that students learn and use this "language" and see the power it has to influence the way they think and the way they progress in learning. After cultivating a growth mindset in the classroom, this is what you hear students say:

"I used not to like making mistakes, but now I'm ok



Creating an anchor chart for growth mindset

with it because I found out that by making mistakes you learn."

"If I make a mistake, I try to understand my mistake and improve by practicing a lot.

If I struggle in a topic or unit, I ask for help, and I never give up and always try my best."

"I thought I could not be good at math, and now I see that I can!"

"Miss, I want to do the "challenge" work!!"

"Writing was a subject I hated, and I thought I could not do well, but I saw that I could do better and better after I learned about the growth mindset."

A few years back, a small but significant experiment was conducted. Two classrooms, same school, same population make up. Around March, we introduced tangrams to the kids. We posed the same problem: "Make a square using all seven pieces." The students in classroom A with Growth Mindset embedded into their day to day pursued this challenge with perseverance, encouraging each other and not wanting to stop. When they were told they had to stop for the day, they asked if they would get another chance to try. The teacher responded with "of course." Then they asked, "How long will it take us to solve this?" I smiled and told them it might take a day, a week, or a year. They accepted this and couldn't wait to try again. On the other hand, in classroom B (with no Growth Mindset), the students took on this challenge with a Fixed Mindset. All around the room, you heard things like "this is too hard," "this is impossible, Miss", "I can't." They stopped trying even before the teacher

told them it was time to clean up. When the teacher mentioned that sometimes tasks are hard and they can take longer to understand the students asked her how long and she responded the same way as mentioned before in classroom A. Unfortunately the students' response was, "What? A year? I won't be in your class in a year, so I won't ever figure this out." The subtle difference the classrooms had, came down to the language used to embed a Growth Mindset. Both were strong, passionate educators that only wanted the best for their students. When the two educators came together to discuss the small experiment, they were amazed at the outcome. As educators, we must embrace the challenge and then see the outcome shining through our students.

Implementing a growth mindset in the classroom would be most effective, starting in lower elementary. In second grade, I start off every academic year with the following question: "Raise your hand and tell me if it is okay for you to make mistakes?" Each year still shocks me with the percentage of the students answering with "no." This year was no different, with 90% of them again answering no without hesitation. My immediate response after this question is, "Of course it is okay to make mistakes; this is how we learn and get stronger and smarter brains." My class looks at me stunned, and some even giggle thinking 'what is this silly teacher saying?' Not a single day goes by, that we do not mention Growth Mindset in some way, in our morning wake up, in our core subject work, in our language, in our playtime, in our hello's and our goodbye's. It starts to become a habit, which leads us to make it a natural part of our day to day thoughts. It takes time, patience, grit, and perseverance, and many days as an educator I think...are they getting this? Then I hear them discussing with each other; "It's okay you made that mistake, that means your brain is getting stronger because it is doing hard things" and it continues with, "Yes you do not want your brain to get lazy do you? You have to challenge your brain every day."

Students' wellbeing and mindset affect their relationship to learning and academics. Educators guide students and supply them with the skills needed to take control of their learning (learner agency) by building strong relationships in the classroom and establishing an environment where students are engaged in learning and realize that they are all capable individuals who should not feel off-put or disconcerted from learning something new. Student wellness and the perception they have of themselves is key to happy, healthy learners. It is of the utmost importance to cultivate a positive and safe classroom environment where students are comfortable and even encouraged to make mistakes and "grow their brains." Imagine a school where Growth Mindset starts in Kindergarten and continues through Highschool Graduation. Educators can fit a growth mindset into their day to day schedule and integrate it into core subjects.

Elementary adventures

Enriching Children's Lives through Play

by Efthimia Karatopouzi, Elementary School PE Teacher

Imagine if you had time to play, every day in your life! Free play time allows children and adults alike an opportunity to feel free mentally, physically, and emotionally.

Playtime serves an important function in human development, at all ages. It is a special activity when children explore the world and themselves. It is a fun experience that helps develop physical and social skills, imagination, relaxation, and a sense of mastering the world.

There are several benefits that are developed by playing, and these are:

- **Physical-** Active play helps kids with coordination, balance, motor skills, and spending their natural energy (which promotes better eating and sleeping habits)
- **Emotional-** Play helps students believe in themselves. They feel happy, more secure, and free. During play they develop their self-esteem, as when playing children get in their "own world", where they feel secure and not judged by anyone.
- **Social -**When children play, they get to be involved with other groups of kids, where they can develop

their social skills to learn how to play with each other. As an example, when in PE, we play the Forest or the Neighborhood game, children have to share benches, cars, houses, etc. they learn to respect and collaborate with each other to Play.

- ◎ **Cognitive.**-They learn all kinds of games in different variations. The games can be in groups, pairs, or individual. As an example, active games, critical adventure games as many more. Students build up their knowledge during their playtime.

In PE, we implement different games to build up children's Mind Body and Soul growth.

- ◎ **Creative** - Students are always willing to learn new games; we also encourage them during PE to be the creators and designers of their own game.

Designing and preparing the new game students gets into groups. They learn to collaborate and have the opportunity not only to create but find out what kind of Leadership Skills they have.

Play is very important for a child's development. It is an integral part of a child's early years of age, foundation stage and supports their learning journey too.

Young children can develop many skills through the power of Play.

In turn, this helps them develop the ability to concentrate. Play is important to healthy brain development. It is through play that children at a very early age engage and interact in the world around them.

Early childhood free exploration Play is something magical for the students.

As a PE teacher working with early childhood, I found that children at this age need something more than the necessary motor skills that are taught for this age group.

They need to feel Free, Safe, and Comfortable. I found out that Play in exploration, Free role Play is highly beneficial for this age group and makes communication between children and teacher very easy as students feel very happy.

Why is that?

Because playing in the theme exploration story, students have the opportunity to move freely, they get to know and understand their limits in order not to hurt themselves, they play in a story and choose where they want to go, how, with who and with what speed to move.

They learn to ask for help from each other, they learn how to share, and they observe each other in the way of correcting, protecting, and carrying.

It is through play that children organize and make sense of the world. Play also helps children work through tension in their lives. Play brings out chil-

dren's creativity and so much more.

As a matter of fact, play continues to be important even for adults as it builds up their inner strength, self-esteem, and a different Mindset.

Teenagers are in an important transition stage where they naturally try to break free from their parents, they go through, cognitive, emotional, physical and attitudinal changes that provide the basis for personality development and instead seek out new ways of doing things for themselves. Play is a very important and strong tool to use in school and at home to develop a base and balance in communication.

Regarding PE time, teenagers seem to adapt in a more motivated way of participating and having fun. They seem more interested in PE and much happier with themselves, the teacher and their classmates.

Studies show that Play improves memory and stimulates the growth of the cerebral cortex. Play has also been shown to trigger the secretion of BDNF (Brain-Derived Neurotrophic Factor), a substance essential for the growth of brain cells. The outcome of being happy and having the endorphins in high levels improves students brain functionality in a more positive attitude towards their academics

Play seems to appear as a very powerful tool for children-students positive behavior, attitude, growth development, and perspective for life.

What if we could tap into play to enhance our life experiences, our professions, our relationships, and our family lives as adults as well.

The last two years, we have invited parents to come and play with their children in Kindergarten Field Day .

It's one of the best moments of Field Day, as parents enjoy and have fun with their toddlers.

Also on our PE Led Conference Day, parents seem to have lots of fun along with their children when they have to go through, different kind of games and activities.

They look so happy and energetic, as endorphins are flooding their system.

Different forms of playing

Rough-and-tumble play is a great learning medium for all of us. Diving, batting, tug-of-war, capture the flag, scavenger hunts, kickball, and dodge ball are always to play actively. According to Dr. Brown, through this form of play, we develop emotional regulation as well as cognitive, emotional, and physical mastery.

This form of play will bring us back to our childhoods as object play can encompass building with Legos, playing with Jenga blocks, building fortresses, and can even having snowball fights. Manipulation of objects, building, and designing all fall into the object play category.

There are many other ways that we can play and many other categories of play. We've already gone over the positive benefits of playing, so heads-up, the side effects may include (but are not limited to): improved cognitive functioning, being able to deal with stress with greater ease and fluidity, creative thinking, childlike exuberance, and laughing more often. Experiment a bit to find what works for you, as we all could use a bit more play in our responsible, adult lives.

Being happy and creative gives the opportunity of an open, and strong Mind, Body, and Soul.



Elementary adventures

Preparing JK-5 Teachers for Instruction Through Inquiry Methods & NGSS Practices at ACS Athens Elementary School

by Sophia Moros, Elementary School Principal,
Sana Kassem, Elementary School Science Faculty
Dr. Abour Cherif, Dean of the Institute

Educational guidelines for school curricula are constantly evolving to meet the needs of our children's future. Reforms, specifically in the sciences, started to undergo mass transformations as the need for blending learning with technology, mathematics, engineering, and the arts had rapidly increased in 2001. This blending of learning vastly became known as STEAM Education and was supported by the US State Board of Education from the get-go.

"[Science] is more than a school subject, or the periodic table, or the properties of waves. It is an approach to the world, a critical way to understand and explore and engage with the world, and then have the capacity to change that world..."

— President Barack Obama, March 23, 2015

The Next Generation Science Standards (NGSS) were born in 2013 and supported by the plethora of research that supports children's innate ability to wonder and explore world phenomena. *"The National Science Teachers Association (NSTA) affirms that learning science and engineering practices in the early years can foster children's curiosity and enjoyment in exploring the world around them and lay the foundation for a progression of science learning in K-12 settings and throughout their entire lives"* (NSTA Position Statement)

This past year at the ACS Athens Elementary School, the administration supported its educators with ongoing workshops, offered each trimester, that incorporated the framework of NGSS units of study through inquiry-based techniques. These engaging instructional practices provided teachers with a range of scientific methodologies and engineering exercises; which were later carefully delivered to our students during their science sessions in our advanced lab room. Dr. Abour Cherif, Dean of the ACS Athens Institute along with Ms. Sana Kassem, ACS IB and Elementary Science Faculty, co-created and headed three series of workshops that provided opportunities for our elementary grade-level teams to develop lessons that encourage student interaction, focus on real-world phenomena, provide possibilities for investigations and interpretation of data and even cultivate student's ability towards critical thinking. These workshops totaled 40 hours of face-to-face instructional time, along with the completion of homework assignments intended to meet course requirements for unique lesson design.

The two dynamic instructors, Dr. Chrief, and Ms. Kassem maintained and reinforced our educator's instruction in making incremental and continuous changes via the inquiry-based learning approach where our students reaped the benefits and demonstrated a more sophisticated approach to acquiring new knowledge while rising to the expectations of creating connections to new themes.

This is exactly the reason our teacher training/workshops were modeled after John Dewey's (an American philosopher, psychologist, and educational reformer) Theory of Inquiry-Learning. In this theory, the learner acquires knowledge by "doing and reflects on what he/she are doing" (Cherif).

"Inquiry-based learning (also **enquiry-based learning** in British English)^[1] is a form of active learning that starts by posing questions, problems, or scenarios. It contrasts with traditional education, which generally relies on the teacher presenting facts and his or her knowledge about the subject. Inquiry-based Learning is often assisted by a facilitator rather than a lecturer. Inquirers will identify and research issues and questions to develop knowledge or solutions. Inquiry-based learning includes problem-based learning and is generally used in small scale investigations and projects, as well as research.^[2] The inquiry-based instruction is principally very closely related to the development and practice of thinking and problem-solving skills.^[3]"



"A rich science education has the potential to capture students' sense of wonder about the world and to spark a desire to continue learning about science throughout their lives. Research suggests that personal interest, experience, and enthusiasm—critical to children's learning of science at school or in other settings—may also be linked to later educational and career choices [27-30]. Thus, for students to develop a sustained attraction to science and for them to appreciate the many ways in which it is pertinent to their daily lives, classroom-learning experiences in science need to connect with their own interests and experiences." (A Framework for K-12 Science Education)

During each cycle of training our elementary school teachers experienced this inquiry approach in 3 phases. Each phase was designed to model this learning approach, as our students would potentially undergo in the latter. The purpose of conducting the exact same lesson(s) with the teachers first is so they can understand the experiences and various questions that can arise from this process and witness the framework unfold through these activities, therefore, preparing them to guide student learning with specific questions.

Dr. Cherif and Ms. Kassem facilitated the learning experiences using various phenomena such as "Where Did Dinner Come From?" or "Understanding Life Cycles" and guided each event by prompting specific questions. These modeled lessons left every teacher with a lasting impression of how learning flourishes when knowledge comes from communication and sharing information with peers.

In the first cycle, the faculty went through learning all about Guided & Unguided Inquiry Approach. This phase exposed teachers through modeling at least 3-different teaching methods, approaches, and or strategies that have been proven to be very effective in teaching science. Unguided inquiry proved to be a bit uncomfortable for some as the general idea is to allow the learner to use whichever resource to research a question or solution. The teacher can also be used as a resource while everyone works at his or her own pace. The biggest, yet most satisfying discovery during this cycle, was allowing time for the learners (in this case, the teachers) to struggle first and slowly come up with solutions.

In the second cycle, teachers examined the effectiveness of the updated science lessons and evaluated engagement levels required to maintain an active class with students that may or may not have the background knowledge to build on, or even begin examining a phenomenon. Altering lessons to meet our student's needs for the day became a much-needed model to meet our evolving curricular demands.

In the final cycle of training, our elementary teachers were presented with a means to evaluate student learning in order to best appraise the inquiry method (both guided and unguided). The final workshop session focused mostly on rubric design and walked teachers through gauging various kinds of questions

posed to better steer student learning. Dr. Cherif and Ms. Kassem exposed teachers to at least 3-different assessment methods, approaches and/or strategies, which have been proven to be very effective in assessing student's learning in the sciences. "Assessment for learning is any assessment for which the first priority in its design and practice is to serve the purpose of promoting pupils' learning. It thus differs from assessment designed primarily to serve the purposes of accountability, or of ranking, or of certifying competence. An assessment activity can help learning if it provides information to be used as feedback, by teachers and by their pupils in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged. Such assessment becomes 'formative assessment' when the evidence is actually used to adapt the teaching work to meet learning needs. (pp. 2-3)." (Black 2004)

Finally, at the end of this school year, our faculty was awarded Course Certification for the completion of their extensive contributions and participation in learning about the Inquiry approach to science instruction.



"From a teacher point-of-view, inquiry-based teaching focuses on moving students beyond general curiosity into the realms of critical thinking and understanding. You must encourage students to ask questions and support them through the investigation process, understanding when to begin and how to structure an inquiry activity (Guido 2019). As classrooms are ever more driven by inquiry, they elicit open responses (Wasserman 1984), and our students are feeling secure in knowing how to proceed and regulate their learning based on self-discoveries and open responses (Cherif 2000).

After these series of trainings, the educators' feedback, via a survey at ACS Athens, indicated that implementing Inquiry-Based Learning held consistent results with the NGSS Framework. This approach encouraged teachers to take more of a facilitator role and intentionally ask clarifying questions that strongly guided student learning with a full range of scientific and engineering practices. Therefore, student performances showed higher thinking skills, or logical understanding, of science ideas that incorporated the crosscutting concepts of the NGSS Framework. The instructional-techniques the teachers developed during these sessions led to greater student connections for learning across the various science units.

Our educators put forth countless hours preparing for lab cycles and inquiry lessons, assessment documents, or preparing the materials for student practice. ACS Athens Elementary School is proud to have

an up-to-date Science Lab with facilities to support the learning objectives for STEAM education. After referencing the National Academic Press, the following five benefits to having a science lab run congruent to the objectives of ACS Athens Elementary School as they indeed aspire student learning.

1. **Understanding the complexity and ambiguity of empirical work.**
2. **Developing practical skills.**
3. **Understanding the nature of science.**
4. **Cultivating an interest in science and interest in learning science.**
5. **Developing teamwork abilities.**

ACS Athens Elementary School teachers will continue to consistently visit our science lab to ensure the high standards of learning associated with lab exposure.

The inquiry approach is a tactic that provides time for student exploration and discovery using skillsets from mathematics, logic and reasoning, sequencing events, or listing details from the investigation. When these skillsets were transferred to the classrooms the outcomes proved that students conducted investigations with confidence, and discovered ways to represent data in various means, gathered additional information as needed, better-defended and articulated arguments to justify their models and creations with more elaborate responses, etc.

It's important to highlight that this teacher training did not focus on the learner's ability to memorize facts or definitions, but alternatively, the approach reinforced Bloom's Taxonomy Pyramid and focused student interaction on their ability to analyze, evaluate, and create a product based on understanding and refining unit themes. This is where the culmination of learning became evident.



"Reform of science education must be viewed as part of the general reform of education. Approaching the improvement of science education by changing textbooks, buying new computers, or adding a new course simply will not work. Fortunately, widespread educational reform, which includes science education, is underway. Science educators must view reform, holistically and systemically as the reconstruction of science education for K-12 and include all courses and students, a staff development program, reform

of science teacher preparation, and support from school administrators. This comprehensive or systemic recommendation is based on the research on implementation (Fullan, 1982; Hall, 1989) and research literature on school change and restructuring (Kloosterman, Matkin, & Ault, 1988; Roberts & Chastko, 1990; Tobin & Espinet, 1980; Yeany & Padilla, 1986)." Closing this chapter to a successful implementation year, my faculty and I greatly anticipate the progressions for our student body in the upcoming school year as we prepare to ignite student curiosities and encourage them to excavate their learning through questioning, researching, and holding meaningful discussions. After all, children are born investigators, so it is up to us to guide them accordingly.

Not only was the faculty motivated with this year-long training, I, too, was inspired to share a piece of NGSS content with our Kindergarten students on their graduation day. My speech revolved around one property of matter, sand, as all children begin learning through sensory development.

Playing with sand in the early years activates the senses; which in turn encourages scientific processes because problems are solved using the five senses: sight, sound, smell, taste, and touch. By stimulating children's senses, their brains further develop as each triggered sense engages neural pathways to assist with further learning even into the later years.

Please allow me to share an excerpt with you below:

The promise of the sand - A farewell speech to the K's

by Sophia Moros, Elementary School Principal

"Boys and girls, as summer has finally arrived, many of you will be heading to the seaside for your much-deserved vacations because you've all worked very hard this year and have all grown so much. Not only in your physical height but also in your mental ability. That means brainpower! You have certainly prepared the best you can for your next steps into 1st grade. Don't forget that YOU have really earned this summer vacation!

But before you get on your way to swimming, I would like to tell you a short story that you can remember when you're at the beach this summer.

So, listen carefully!

The Promise of the Sand

(Adapted version from an unknown author)

How would you describe sand?

What is it?

Would you say that it is tiny rocks?

How many tiny microscopic rocks would you have to have before you had a sandy beach?

Where did all that sand come from anyway and how in the world did it get there?

What is the sand made of?

There are SO many questions about sand, but there is something special about every single grain of sand on the beach that I will tell you about today.

Did you know that sand could be more solid than a wall of rocks? Sand can absorb tons and tons of water between all the grains on the beach. The water acts like glue holding the sand together, making it IMPOSSIBLE to move, even against the heaviest pounding of the ocean.

Dry sand can be blown or swept away. But wet sand washes back and forth and stays put. Sand is made of many tiny different kinds of rocks. Some sand is made of quartz and some out of limestone. There is sand made of tiny pieces of shells, and there is jet-black sand made of obsidian. There is even pink sand made up of coral and greenish sand composed of lava rock from volcanoes made long ago. While the mighty ocean cannot move the sand very far, the wind can move even the largest of dunes.

Just like the grains of sand, each and every one of you is unique, and all of you are made up of something special and equally strong. And your teachers are just like the ocean, filled with loads of exciting discoveries that help hold you together.

Next year, when you start your first-grade adventures, you will be just like tiny granules of sand coming together to form a new stretch of beach. My wish for you is that you all to stick together and listen to your teachers next year. This way, you will be guaranteed to bond like wet sand and withstand any tidal wave.

Boys and girls, we are so proud of your achievements and successes, and I look forward to seeing you all again next year. Wishing you a wonderful sandy summer holiday! CONGRATULATIONS my little granules of sand.

Are you ready to receive your certificates, now?"



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Elementary adventures

Behind the Scenes of Creating Ongoing Workshops for Inquiry-Based Learning, at ACS Athens

by Sana Kassem, Elementary School Science Faculty
Dr. About Cherif, Dean of the Institute
Sophia Moros, Elementary School Principal,

In the year 2015, I wrote an article for the ACS Ethos Winter edition magazine with the title ***“What Are We Doing in Science Today”***. The article described the engagement, the excitement, and the joy ES students exhibited while performing the hands-on and inquiry-based activities during the first year of the establishment of the Elementary Science program at ACS. It’s a unique program, which was initiated by Dr. Gialamas in September 2014 to deliver a high quality, inquiry-based science curriculum to JK – 5 students in a state-of-the-art science lab.

During the past five years, this program has evolved and developed to become a holistic STEAM program. In the year 2018-2019, the program took a step further and bridged ES science education with College-level education by offering workshops aiming to train ES faculty. The training was extensive and rigorous and was equivalent in content and value to university-level

courses in Science Education programs.

Dr. About Cherif, Ms. Sophia Moros, and I offered four extensive workshops to the faculty of the Elementary School. A total of 40 hours over four weeks were devoted to offer a comprehensive approach to tackling science education in all areas: Methods of teaching and lesson planning, delivering content and Assessment. In addition to this, the faculty devoted to at least an additional 30 to 40 hours of planning, faculty meetings designated to Next Generation Science Standards *NGSS focus and reading of the material so our students can experience a new approach to learning science.

The first Workshop, **“Using an Inquiry-Based Method in the Teaching of Science,”** focused on the six questions teachers should use during science lessons. The workshop was carried out utilizing a plethora of science activities and demonstrations. The first of 6 questions was created to invite students to jump in and share their previous experiences, make predictions, or simply take a guess. The question states, **“What do you think will happen if...?”** and the lesson begins followed by the teachers offering their predictions and explanations to the phenomena observed.

Guided Inquiry Question in Teaching Science Concepts	Nature of the Question	Aim and Objective of the Question
i What do you think will happen given this set of conditions? (If, for example, X is added to Y?)	Predicted Question	To arouse interest, stimulate thinking, and provide predictions.
ii What actually happened?	Descriptive-Discovery Question	To build an awareness of what actually happened.
iii How did it happen?	Holistic-Descriptive Question	To establish in students' minds the cause and effect relationship; to think of all the processes that took place as a total integrated whole; to provide general understanding of the process that took place and resulted in what actually happened.
iv Why did this happen?	Casual Question or Reasoning Explanation	To develop and apply some kind of mental analysis that enables students to generate a reasoned and testable hypothesis (tentative explanation) using their ideas, experiences, and understanding.
v How can we find out which of these hypotheses is the most reasonable?	Experimental Question	To provide the opportunity to actually plan and carry out experiments of their own; to gain skills of designing experiments, testing hypotheses, reasoning, and debating results.
vi How can you relate the investigated ideas, concept, or principle to your daily lives?	Idea-Application or Understanding-Testing Question	To understand the idea or the concept under investigation; to master the inquiry processes; to apply reasoning patterns in other situations; to accept science as a way of knowing and understanding.

When the lessons begin, and children are asked, **“What do you think will happen if you drop a few raisins in a glass filled with clear liquid?”**

The following five questions are used to facilitate student learning by keeping students engaged and active participants in the activity or lab at hand. For instance, the second question would state something along the lines of, **“Why are the raisins dancing up and down in a glass of water? Or “What do you think will happen if you place an inflated balloon close to an empty soda can or a toilet paper tube placed on smooth surface of a table?”**



http://www.exploratorium.edu/science_explorer/roller.html

How can an inflated balloon remotely control a soda can or a toilet paper tube?

What do you think will happen if you drop one piece of a candle in each one of two beakers containing clear liquid?

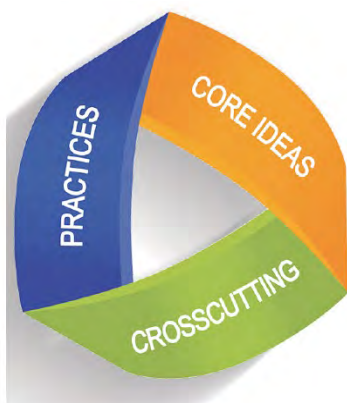
Why is the same candle floating in one beaker and sinking in another?



<http://www.middleschoolchemistry.com/lesson-plans/chapter3/lessons>

Why is the same candle floating in one beaker and sinking in another?

At the end of the first workshop, teachers were asked to choose a science unit and plan their lesson using the six inquiry-based questions. While working on their NGSS unit, they realized that the congruence between NGSS and the Inquiry-Based Method shows a marked similarity in approach.



The 3D approach of NGSS

In addition, teachers were also given the opportunity and challenged to see if they want to remove, change, re-write, any of the six-guided inquiry questions. They were also asked if they wanted to add one or more questions as well. Here the teachers analyzed and discussed every question, the topics they teach, the grade level of their students, as well as what they expect of their students to be able to do. Some teachers proposed adding one or two specific question(s).

A few others suggested re-wording some of the questions to meet their students' cognitive level of ability, etc. Some others felt comfortable and highly satisfied with the number of questions, their goals and objectives, and their clarity and focus on what the students need to do. The exercise was eye-opening to almost all the teachers in the power of guided inquiry in motivating students to comprehensively engage in the learning process. The desire to know is not only inspiring to actively engage but also a mental force that cannot be ignored. After all, as Christy Price, a psychologist at Dalton State College described, "Modern learners have a different mindset about education, but that doesn't mean they don't want to learn. They just go about it differently" (Price, March 28, 2013). Because of this, as Kelsey Metzger, from the Center for Learning Innovation at University of Minnesota Rochester, demonstrated in her recent article, it is not only the "events that occur on the first day of class that can leave a lasting impression on student and affect their motivation and performance, but also what we do and ask students to do in every class time will shape their careers and future life" (Metzger 2013).

On the sidelines of the workshop, Dr. Cherif attended grade 5 science class where students were doing experiments on acids and bases: pH scale, indicators, and neutralization reaction. Dr. Cherif was observing the lesson and the experiments going around asking probing questions. At the end of the lesson, Dr. Cherif gave the students a short homework assignment. He asked students to "Show me in any way you wish what you learned today in science." Students were given the freedom to choose how to demonstrate their learning. The students immediately started to discuss with each other how they would show their learning. They had one week to prepare and present their learning. The creativity of the homework was astonishing. Students made videos, songs, puppet shows, they wrote articles and stories, drew posters and cartoons, they rapped, they danced, but most importantly, they were very proud of their achievement. When they had to answer a questionnaire about how they felt about this type of homework their responses were not only mature but also very inspiring. Responses included: "I was anxious first but excited at the same time." "I am happy that I was given the choice." "This was my most interesting homework assignment." "I wish we could do this type of homework in all lessons." While presenting their homework, students were proud, and confident with a deep understanding of acids, bases, pH scale and indicator and most importantly left with an important and easy to remember message when working with such substances: "Never add an acid to the base if you want to save your face."

In the second workshop, science content from the three science domains, Life Science, Physical Science, and Earth Science, were smoothly delivered using the Interdisciplinary Model of teaching. This model of teaching and learning consists of a series of sequential steps of well-designed learning tasks that capitalize on students' previous knowledge and experience. Students learn that every sequential step will help them generate more knowledge (information, data,

concepts, and skills) through minds-on-hands-on investigation. The teacher facilitates the learning by setting tasks, posing questions, offering tips and suggestions, and assisting students in learning on their own by helping them make real and relevant connections and to evaluate and correct their learning process. Throughout the investigation and learning process, teachers provide effective feedback that helps students learn by seeing where they are going, where they are now, and where they should go next in their learning tasks.

The starting point for the first topic **“Developing an Ecosystem Awareness to Living Animals in Urban Cities”** was to ask the students for each to draw his/her favorite animal. The students were then guided through 15 different activities to explore and develop a whole unit covering all the components of an ecosystem.

The second topic **“What Did You Eat Last Night?”** started with the students listing all the food they ate at dinner, followed by a sorting exercise, which required the students to classify the foods into living and non-living sources. The final topic consisted of ten activities about matter. Students learned about measurement, atoms and molecules, organic and inorganic substances, and finally chemical and physical changes.

The teachers appreciated this model of teaching and asked Dr. Cherif to work with them to develop a similar model to teach the solar system topic. Teachers worked together as teams in coordination with Dr. Cherif to design the lesson for one whole unit of the solar system. At the end of the year during the Professional Development days, the teachers had a three-hour workshop using sand as a starting point to teach about glass, lenses, microscopes, telescopes, computer ships, and nanotechnology.

Lots of science content was delivered during these workshops covering most of the second dimension of the NGSS, the Disciplinary Core Ideas, and also boosting the confidence of the elementary school teachers. Teachers felt that they were now capable of teaching any science topic for any grade level. They have acquired the knowledge necessary to equip them with the tool to carry out engaging science sessions with their students. In the same manner, they were actively engaged in the workshops by hands-on activities and by discussing and presenting their answers and finally wrapping up with a conclusion for each lesson. The booklets prepared for these workshops included many guided worksheets to reinforce the science concepts presented.

After the two workshops, the teachers showed an interest in exploring assessment methods. The third workshop covered different informative and summative assessment tools. Teachers were asked to bring tests and quizzes and match the questions to Bloom's taxonomy cognitive levels. It was clear to all teachers that the tests given to students so far had focused

mostly on the lower cognitive levels of learning: memorizing and recalling facts. Teachers worked together to modify the questions so they could assess higher cognitive levels by applying, analyzing and evaluating results. The end of the year competency tests of grades 4 and 5 reflected all the modifications, and the overall test assessed the problem-solving skills of the students and required that students apply their knowledge, analyze and evaluate data and design an experiment to solve a given research question.

In conducting the workshops, the workshop leaders modeled how they want faculty to teach their students. All the participants were treated as students during the actual workshops. Teachers were learning how to teach science by doing science.



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Elementary adventures

Using Paper Tubes to Engage Students in Learning Science and Math in Classrooms*

by Dr. Abour Cherif, Dean of the Institute,
Sana Kassem, Elementary School Science Faculty
Dr. Stefanos Gialamas, ACS Athens President

“To invent, you need a good imagination and a pile of junk”

Thomas Edison

The pile of junk used in these activities is nothing but paper tubes. During holiday seasons, many people end up having a surplus of paper tubes from the gift wrapping papers. In addition, every week we discard so many paper tubes from aluminum wrap, paper towels and toilet papers, to name a few. Paper tubes come in a variety of lengths, sizes, diameters, thickness, toughness, strengths and colors. The learning activities proposed in this article will help introduce various STEM concepts and assist the teachers in engaging students and in deepening their thinking, understanding, and application of science concepts. These activities will also enable, the teachers, to seamlessly integrate math, science, engineering, social studies, arts, and language arts together in a learning setting. Through these activities your students can gain the skills to acquire, make mean-

ing, and transfer knowledge. After all, as Boyles and Contadino (1998) put it:

Learners who can make connections between the subject matter and their own experiences struggle less with paying attention, completing tasks, and taking tests. An academic struggle begins when students do not have the hooks with which to connect the information given with their own experiences and strengths. ... This means learning occurs through a variety of approaches, incorporating many subject areas and using the sensory pathways. Understanding is facilitated when opportunities to see, hear, smell, taste, and feel are made available. (p.33-34).

Paper tubes are good in stimulating all the sensory pathways through which learning could take place in the minds of the learners. They are also cheap, easily available and safe to be used for all ages and grade levels. They are real and relevant teaching tools that make teaching not only effective but also fun and enjoyable for students.

Teachers can start the lesson by welcoming the students to a classroom filled with so many different paper tubes laid on the floor or on the benches. Children will immediately become curious, interested, authentic explorers, investigators, communicators and inventors. The following are only a few with what you can do with paper tubes in science and math classes.

Paper Tubes, Light and Binocular Vision

All the following light activities work best with a non-white background, in a bright area.

Activity 1:

A Big Hole In the Middle of My Left Hand

Linguistically speaking, English dictionaries define a hole as an empty space or opening in an object; or as a hollow place in a solid body or surface that we can see through and or that needs to be filled because someone or something is no longer there. (<https://en.oxforddictionaries.com/definition/hole>).

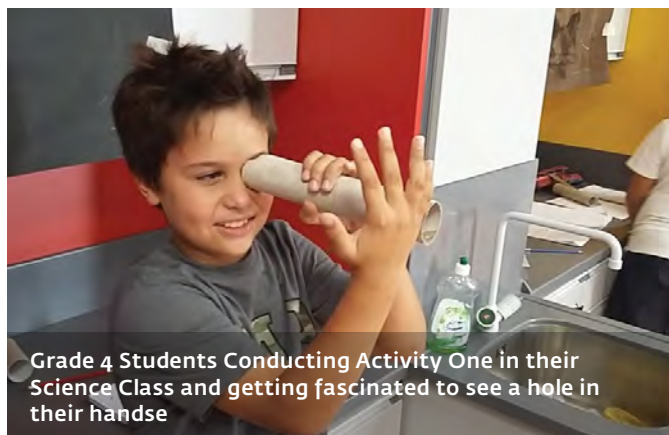
However, in mathematics and in science the word hole has different meanings. In a mathematical object, the hole is a topological structure which prevents the object from being continuously shrunk to a point, whereas in science a hole refers to a defected crystal when an electron leaves its normal position in one of the crystal bonds. In astrophysics, the famous black hole is the region of [spacetime](#) exhibiting such strong [gravitational](#) effects that nothing—not even [particles](#) and [electromagnetic radiation](#) such as [light](#)—can escape from inside it. In our first activity the hole in the hand is nothing but an optical illusion created by your brain when it receives two different images from our eyes.

Materials

Various lengths of paper tubes of same diameter and an identified object on a given wall.

Procedure

- ⦿ Hold a 30 cm long paper tube in your right hand.
- ⦿ Close your left eye.
- ⦿ Through the right eye, look through the tube at an object placed on the wall.
- ⦿ Describe and record what you see.
- ⦿ Keeping your left eye closed, open your left hand and place it along the side of the paper tube that you are holding with your right hand.
- ⦿ Describe and record what you see.
- ⦿ Keep looking through the tube at an object placed on the wall, open your left eye, describe and record what you see.
- ⦿ Keeping your right eye open, repeat opening and closing your left eye, and describe and record what you see on your right hand.
- ⦿ What did you learn from engaging in this activity?



What did you see?

You see an imagery big, clean hole right in the middle of your left hand.

Challenge:

What do you think will happen to the image of the object and the imaginary big hole in the middle of your left hand if you move closer to or farther from the original identified object?

Activity 2:

How Do We See Objects

What do you think will happen if you hold two identical paper tubes (in size and length) in your left and right hands with ends pointing in different directions and you bring very slowly the far ends together?

Materials

Pairs of paper tubes with various lengths and sizes. Each pair of paper tubes is identical in length and in

diameter.

Procedures

- ⦿ Take one pair of paper tubes with same length such as 30 cm. Mark one paper tube of a given pair as Right Tube (RT), and the other one tube as Left Tube (LT).
- ⦿ Mark one end of the (RT) as the "R-Eye-end". Mark the other end of the same tube as "R-Far-end". Mark the ends of the Left tube (LT) of the same pair as "L-Eye-end" and the other end as "L-far-end".
- ⦿ Hold the paper tube marked RT on your right hand, and the paper tube marked LT in your left hand.
- ⦿ Using the paper tube in your right hand and the eye-end of the tube, bring the tube to your right eye, and look through the tube, in straight line, at an object placed on the wall.
- ⦿ Using the paper tube in your left hand and the eye-end of the tube, bring the tube to your left eye, and look through the tube, in straight line, at an object placed on the wall.
- ⦿ Describe and record what you see. For example, how many images can you see?
- ⦿ Slowly, move the far-end of the right paper tube and the far-end of the left paper tube toward each other until the far-ends of the two paper tubes touch each other.
- ⦿ Describe and record what you see. For example, how many images do you see?

What did you see?

When the R-Far end and L-Far end are far from each other (not touching each other), you see two images. When R-Far end and L-Far end are touching each other, you see one sharp, clear image.

Challenge:

What do you think will happen (will see) if you move closer to or farther away from the original identified object you were trying to see?

Activity Three

Does the size of the tube affect our field of vision?

Since paper tubes come in different sizes, thickness, and lengths, what do you think will happen to your field of vision if you use different sizes and or different length of paper tubes?

Materials:

Paper tubes, in different lengths and sizes, newspaper prints, colored pencils or markers, rulers, measuring tapes, etc.

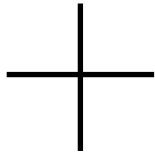
Procedures:

- ⦿ Place three or four newspaper prints on the wall.

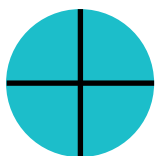
- ⦿ Draw a picture on the newspaper print.
- ⦿ Stand about 150 cm away from the picture on the wall. Mark the floor where you are standing.
- ⦿ Measure the distance from your head to the picture on the wall. Record the distance as "D".
- ⦿ Take two paper tubes that are identical in length and size. Label one of them "left" and one "right".
- ⦿ Hold the right tube to your right eye and close your left eye.
- ⦿ Focus on the picture you made on the newspaper print in the right hand side of the circle.
- ⦿ Have a classmate go up to the newspaper print, and guide him/her to place a mark on the top, the bottom, the right and the left hand side of the circle you see.



- ⦿ Have your classmate connect the top to the bottom dot with a line, and the left to the right dot with a line.



- ⦿ Connect the four dots with a circle.



- ⦿ Repeat steps 6 through 10 with the left eye and the paper tube you marked as "left".
- ⦿ Holding the right and the left tubes in their respective hands, hold the tubes to your face so that the ends point in opposite directions, and slowly bring them together until the ends touch each other.
- ⦿ Ask your classmate to mark the one circle that you see on the newspaper print in the same manner that they marked the two previous circles.
- ⦿ Repeat a few times, and describe what you saw on a sheet of paper.
- ⦿ Measure the following:
 - i. The diameter of the first circle.
 - ii. The diameter of the second circle.
 - iii. The diameter of the third circle.
 - iv. The diameter of each tube; left and right.
 - v. The distance from where you were standing to the newspaper print on the wall.

- (L).
- vi. The length of each paper tube.

- ⦿ Calculate
 - i. The average diameter of the three circles on the newspaper print. (D)
 - ii. The average diameter of the paper tubes. (d)
 - iii. The average length of the paper tubes. (l)
- ⦿ Find the ratio of the followings:
 - i. d/D
 - ii. l/L

What did you notice?

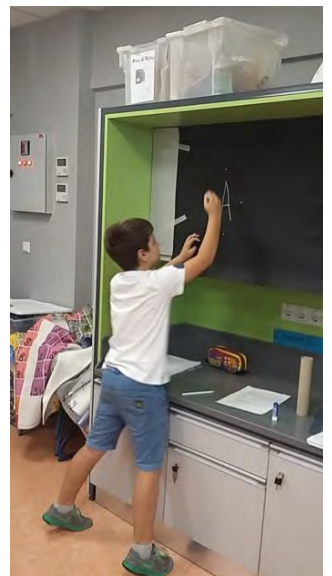


Grade 4 Students Conducting Activity Three with Paper Tubes. Lots of collaboration is needed to get your partner draw the right size of the circle you see on the board.

What actually happened in all three activities?

To start with, light is the stimulus of our eyes for vision. In other words, in order to see something, an object must "bounce" light into our eyes. This bouncing of light from the object is called reflection. Without that reflection our eyes cannot detect and sense the light. Without sensing the light, our brain cannot help interpret the image of the object we look at and thus disabling us to see things around us.

Herbert and Ruchlis (1968) explained that different images are observed in each eye. This is known as binocular vision. We have two eyes which are located slightly in different place in our face. Each eye has a lens that focuses the light on the retina, the light sensitive part of the eye. Our eyes have a way of registering the image on the back of the inner eye ball by the means of numerous sensory nerves in the retina. "Each nerve is similar to a long electric wire with one end on the retina and the other end deep inside the brain." Through these nerves the brain receives thousands of electric messages from the retina. Each image on the retina forms a different pattern of such electric messages.



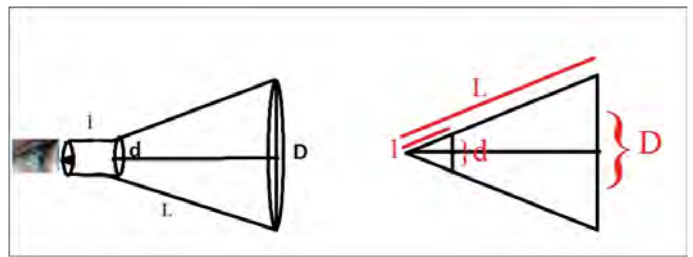
You can understand now why a hole in your hand was observed when you looked through the tube in activity one. The eye that looked through the tube did not see the hand. The eye that saw the hand did not see the round end of the tube. When your brain puts the two images together you saw both images together at the same time. Thus the hole and the hand appeared in the same place, and you saw a 'hole' in your hand" (Herbert and Ruchlis, 1968, p. 10).

Students will be excited and fascinated by these activities and the findings. They want to try repeating them several times with different lengths and sizes of paper tubes. However, while their engagement is essential, it can serve as a starting point to connect their learning to more complex scientific concepts and principles behind the simple observed phenomena. Here, teachers may want to challenge the students by asking them, for example, to compare and contrast how human eyes, camera and telescope work and to find out what is needed for all of them to function properly.

In activity two, looking through the two paper tubes in straight lines, two different sides of the object are seen. By slowly moving the far-ends of the two paper tubes toward each other, the two images of the object come together and form a single shared image. When our brain put the two images together we see both together at the same time as one image. In other words, the brain combines the information coming from the left eye and the right eye into one image and forms a single impression of the scene.

Our two eyes are located slightly in different place in our face. People, especially children, take for granted that two eyes are better than one. But when children are asked "tell me why and show me how", many would answer that we see better with two eyes instead of one. While this is true, young students struggle to come with a way to show how to support the "why". Activity two is one of many activities that help young students to achieve this objective. The students are now motivated to start looking on their own on ways to demonstrate why two eyes are better than one.

In activity three, the concept of binocular vision, vision using the two eyes, can be introduced and students can measure the field of vision of both eyes using the circles they see through the tube using their right eye, left eye and both eyes. At the end of the activity students can understand that binocular vision gives a depth of perception, increases the size of the visual field and improves the accuracy of the vision. For students in middle school and high school finding the ratio of d/D equals to l/L can be explained by the properties of similar triangles.

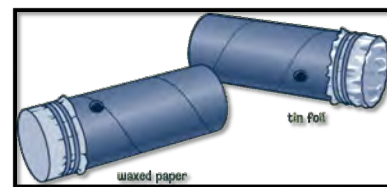


Properties of similar triangles is used to explain the equality of the ratios l/L and d/D where l is the length of the paper tube, L is the distance from the object looked at, d is the diameter of the paper tube and D is the diameter of the circle seen around the object looked at.

Activity 4

Design Time with Paper Tubes

Make an instrument that anyone can play – a kazoo – and get an understanding of the sound vibrations.



Materials

Toilet paper tubes, waxed paper, aluminum foil, plastic wrap, rubber bands, scissors and sharpened pencil.

Procedure

- ① Use a pencil to make a small hole about four centimeters from one end of the cardboard tube.
- ② Cut a square of waxed paper that's one or two cm wider than the end of the tube.
- ③ Wrap the waxed paper tightly over the end of the tube where you made the hole. Hold it in place with a rubber band, making sure you don't cover the hole you made. Trim off any excess waxed paper with scissors.



The making and the testing of our Kazoos using different materials and sizes of the paper tubes

Play it! Place the open end of the kazoo lightly over your mouth and say, “AAHHH!” What happens? Now sing or hum a tune into it. Try making different kinds of sounds to see what causes the loudest buzzing.

Experiment with the Kazoo

- Touch the waxed paper with your finger while you play the kazoo. What do you notice?
- Cover the hole with your finger while you play the kazoo. What happens? Does the hole make it easier or harder to play it? Why?
- Make more kazoos, changing one thing (called a variable). Instead of waxed paper, try tin foil or plastic wrap. Predict which material you think will make the best sound. Test it out. Were your predictions right?

How does the Kazoo work?

All sound is made up of vibrations (rapid back-and-forth movement), which produce sound waves that travel through the air to our ears. When you play a kazoo, air carries the sound waves from your mouth down the tube, making the waxed paper vibrate. You can feel those vibrations if you touch the waxed paper.

The humble kazoo might seem like the most ordinary of instruments, but it’s been played in some pretty fancy places, including New York’s Carnegie Hall. Classical musicians as well as rock legends like Jimi Hendrix have performed with it. Most kazoos are plastic or metal, but some special ones are made from 24-karat gold!

If you repeat this activity with the aluminum foil and paper towel you may have noticed that your voice didn’t have the same vibrating quality as it did with the plastic bag or wax paper. This is because neither the aluminum foil nor the paper towel is quite as effective as a membrane. The aluminum foil is less flexible than the plastic bag, so it did not vibrate as much as the bag did in response to your voice. As a result, sound may have bounced off the foil but it did not amplify in the same way. In contrast, the paper towel was a less-effective membrane because it is too porous. Air—and thus sound waves—could pass directly through it without causing it to vibrate.

Adapted from: <https://www.scientificamerican.com/article/can-you-kazoo/>

Challenge:

What do you think will happen to the sound if you use long paper tubes from aluminum wrap or gift wrapping paper rather than toilet paper tube?

Does the position of the hole affect the sound produced by the Kazoo?

Activity 5

Making Great Ramps

In his article *Wrapping Paper Tubes Make Great Ramps*, Robin Schotter (2011) stated that of all the activities that you could do with wrapping paper tubes, making ramps is his favorite of all. He wrote that:

The tubes are great for exploring sound and can also be fun to explore looking through, but perhaps my favorite use for cardboard tubes is making ramps! ... Simply cut the tube in half down its length, and voila, you’ve created an instant ramp ready for cars, balls or anything else you want to try. Use a little masking tape to secure it to something tall like a chair or shelves and watch how far the ball rolls. Try changing the height and see if you can get the ball to roll farther. Try taping more tubes together to make an even longer ramp. Slide it through a shorter tube to make a tunnel. The possibilities for experimentation are endless! (¶. 1-2).



Marble ramps made by Grade 4 students using paper tubes as part of the project



Challenge:

What do you think will happen to the speed of the marble or car if you mix various sizes of paper tubes in making ramps?

Activity 6

Let Us Build Building and Towers for Those in Need

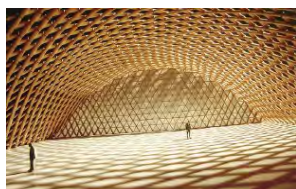
Ask your students if anyone of them ever heard of the Japanese architect and designer Shigeru Ban, who, in his innovative designs so often, use low-cost, locally sourced materials and for which (including his humanitarian work) was awarded the Pritzker Prize. You can show them the photo below and ask them to describe what they see and what is this structure made of.

After the discussion, let your students know that:

The entire building is made out of paper! The designer was Shigeru Ban of Japan. In 1995, he began experimenting with some paper tubes that were lying around in his studio. He found the tubes flexible and surprisingly strong. He used them to build temporary houses for people who had lost their homes in an earthquake. Shigeru Ban proved that paper is building material that is low-cost and easy to assemble. He invented a new form of architecture by experimenting with paper. What will you do?

Murphy & Macaulay (2006),

Designer by Shigeru Ban of Japan
Murphy & Macaulay,
2006, p. 254



Challenge your students by asking them to build a tower or building using paper tubes and only scotch tape and or paper clips.

Challenge:

Where do you think the strength of paper tubes come from?

Final comment

Paper tubes as an object can help us create learning pathways that work with a variety of students and subjects. These activities can act as an activation part of a lesson about the anatomy of the eye, different types of eyes, how eyes can see, why cats can see in dark better than humans. They also can be used to introduce light and light rays, sound and sound waves or simply to discuss papers and how papers are made. For teachers, paper tubes provide directions to learning that are limitless, interconnected and overlapped. They also help to reduce the barriers that could deny many learners the access to excellence in learning and success.

The possibilities are endless as Thomas Edison once said, "To invent, you need a good imagination and a pile of junk". However as Anthony Rebor (2017), recently wrote, teachers need to give students "well-structured opportunities for independent problem solving that can help them broaden their understanding and learn materials in new, more contextually meaningful ways" (p. 7). In order to achieve this, teachers also need first to know the cognitive abilities of the students as well as their innate and learned talents, interests, and how to motivate them and engage them in the learning process through real collaboration, exploring problems and reasoning through solutions guided by well informed and caring teachers (Cherif, 2010; Wilson, 2013; Cherif, Rose, and Gialamas 2016).

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A Few Additional Related Learning Recourse Mystery tubes

http://undsci.berkeley.edu/lessons/mystery_tubes.html

Toilet Paper Engine, by Dorkpunch

<http://www.instructables.com/id/Toilet-Paper-Engine/>

Wrapping Paper Tubes Make Great Ramps! By Robin Schotter <http://www.4cforkids.org/news/wrapping-paper-tubes-make-great-ramps>

Cardboard tube crafts

<https://www.pinterest.com/explore/cardboard-tube-crafts/>

1001 Things To Do With Empty Toilet Paper Rolls

<https://www.pinterest.com/photo1516/1001-things-to-do-with-empty-toilet-paper-rolls/>

22 Things to Make with Cardboard Tubes

<https://happyhooligans.ca/22-things-make-cardboard-tubes/>

Science Projects with Cardboard Tubes. By Buggy and Buddy, February 18, 2017 · <https://buggyandbuddy.com/science-cardboard-tubes/>

Build a Solar Eclipse Viewer

How can you safely view a solar eclipse and solar activity?

<https://www.nationalgeographic.org/activity/build-a-solar-eclipse-viewer/>

Pinhole Viewer,

Science Friday, June 13, 2011

<https://www.sciencefriday.com/educational-resources/pinhole-viewer/>

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*This short article "Using Paper Tubes to Engage Students in Learning Science and Math in Classrooms" is a small section from a coming new book titled "Paper Tubes In Physical Sciences Classrooms: Science and Math In Engaging Action" by Dr. Abour H. Cherif, Ms. Sana Kassem, and Dr. Stefanos Gialamas. The book is expected to be out in 2021.

Elementary adventures

Adopting the Morfosis Educational Philosophy: Inquiry-based Learning and Live Exhibits in 4th Grade

by Lia Sinouris, Iliana Eleftheriou and Evi Evloyias
Elementary School Faculty

"Education is the most powerful weapon which you can use to change the world."

Nelson Mandela

This year found the 4th Grade feverishly working towards embracing change and adopting an advanced learning paradigm fit to transform students into exactly what our school motto states, Architects of their own Learning. In the fast-paced and ever-changing world we are experiencing better yet required to preserve, the International School milieu serves as a beacon of innovation and creativity. As a result, the students acquire the responsibility and ethos to lead, delegate, motivate and create magic outside their comfort zone through their holistic educational experience (Gialamas & Pelonis, 2017). Both our South America Exhibit of Learning and our attendance at the Athens Science Festival proved to be windows of opportunities for the students to ask questions, draw conclusions, analyze, and evaluate information but



4th Grade Students at the South America Exhibit of Learning



ACS Athens at the Athens Science Festival: Students showcasing their work with Ms Sana Kassem, Elementary School Science Faculty

also to interact positively with their audience and become teachers themselves. Essentially, students were able to apply everything they learned in a practical everyday context and, at the same time, embody all that is at the core of inquiry based-learning.

Under Ms. Kassem's expert guidance and enthusiasm, as well as with the experience provided to students through building their brilliant projects at the Science Lab, ACS Athens 4th graders grabbed the unique opportunity, for the second consecutive year, to showcase their learning at the Athens Science Festival. As the youngest presenters within the organization, they shared their future vision of a Green City with the rest of the community in Technopolis, Gazi.

The Athens Science Festival is an initiative organized by the educational organization SciCo, The British Council, the Onassis Scholars' Association and the General Secretariat for Research and Technology, in collaboration with various academic, research and educational institutes. As stated in its website, its aim is to give "residents and schools in and around Attica the opportunity to explore scientific and technological advancements in an entertaining, innovative, and interactive manner. At the same time, researchers, distinguished scientists, educators, and artists give their best to communicate science and indulge the visitors to participate in their experience with it."

Students spent the entire day splitting their time between welcoming guests from other schools around the greater Athens area and interacting with them to elaborate on their built structures but also visiting other exhibits and workshops hosted by older students displaying their work in progress. The theme of ACS Athens 4th graders' projects was "A Call to Stop Coal." In their Green City, students made houses that used solar and wind power as alternative sources of energy friendly to the environment. The machines built and displayed also worked on sustainable and renewable forms of energy such as solar, wind, water, and bio-fuels. Students provided structures to show their audience how the machines in the Green City could potentially work; the garbage would be collected by a pneumatic crane, sent to a pneumatic press by a robotic garbage truck and then recycled. For public transport, a hover train would be used by the citizens of the Green City.

Evidently, this experience as rewarding as it was overwhelming, taught the ACS leaders of tomorrow how important it is to envelop the very community they are a vital part of and connect positively with it, while reflecting on the ideals our school epitomizes: being respectful, ready, and responsible to think creatively, problem-solve, and work collaboratively! Additionally, it gave students a different perspective of what other young learners are creating and sharing around the city and broadened their spectrum by experiencing something greater and extraordinary outside the premises of our campus. "I felt that this is a way, not only to unlock more knowledge of science but also a fine way to help us with our public speaking. I felt special being able to present my creations and I en-



4th graders at the Athens Science Festival

joyed doing something that made me more open to the world. I hope we are able to be part of the Athens Science Festival next year as well." (ACS 4th Grade student)

"I presented on the solar fan. It uses solar energy, which it then turns into Kinetic energy. If there is no sun, you can use a photovoltaic cell to store energy and use it to turn the blades of the fan. It was a nice experience and what surprised me is the fact that there were so many older kids from middle school and high school. I really enjoyed my project and felt everyone paid attention to what I had to say." (ACS 4th Grade student)

Along the same lines of taking initiative and being accountable for one's learning experience per the Project-Based Learning paradigm (PBL), the students worked on an Interactive South America Exhibit of Learning which was inspired by the beauty of South America and brought to life by the hard work of the 4th grade. In a period of 4-6 weeks, the students of 4th Grade researched a country of interest located in the South American continent including various cultural aspects such as native cuisine, flora, fauna, native art, regional music, and sports, while making connections pertaining to the fields of history, geography, politics, and economics. As a final culmination of their study, the students created artwork, informational projects, and presentations relating to different aspects of South American life. Dressing up as the role of a specialist and writing up a speech to imitate a virtual life in one of the South American countries came together in a spectacular celebration spanning over two days and hosting parents and the ACS school community on the 4th grade floor, which had been converted through the help of many people into a vibrant and bustling Rainforest! Finally, students were asked to reflect on their experience after the Live Museum was over via a written report; discussing and looking back on how to make changes and improve on past practices but also asking the students for feedback to provide their future classmates with next



South America Exhibit of Learning

year. This concluded the Unit of Study with students feeling proud and accomplished but, above all, heard and valued.

The Inquiry-based teaching model enhances student engagement in their own learning, as they adopt different roles in the instructional process. Learners ask questions and investigate various concepts through an interdisciplinary approach that allows them to observe and apply their critical thinking skills into everyday scientific experiences (Borovay et al. 2019, Irwanto et al., 2019). Research has shown that students prefer inquiry-based techniques, that prove to be the most effective educational approach for STEM education (Lai, 2018).

Citations:

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The middle school science club had the unique opportunity to present their long-term experiment named "Air Matters!" at the Athens Science Festival 2019 on Friday, April 5th, 2019. With microscopes and light sensors, students worked collaboratively to shed some light on the particulate matter present around us.

Did you know that a particle that you see in a beam of light consists actually of more than one million particles? Particulate matter is the sum of all solid and liquid particles suspended in the air. This can include large particles such as dust, pollen, mold, and smoke as well as smaller particles that are a result of combustion products, organic compounds, and metals. Power plants based on coal and oil, burning wood for fireplaces, diesel engines are a major part of the particulate matter that comes from pollution. One simple technique that students can use to analyze particulate matter in the air is to collect air particles on the sticky side of tape which has been exposed in the air for a specific amount of time. Once the samples are collected, students can shine light through the sample and record the light transmittance using a light sensor. Students collected many samples from around the campus and analyzed the data using the technique mentioned. To further explore their topic, students were curious to look at these particles more closely under the microscope and take photos of the samples up close.

Why is it important to learn about particulate matter? Students researched the matter and also presented a powerpoint presentation on the topic. As these particles are so small, they can easily be inhaled and may be the cause of certain health issues. Even though the

Middle School adventures

MS Science Club @ the Athens Science Festival Air Matters!

by Christina Bakoyannis, Middle School Science Faculty



Science Club students facing the ACS campus and its open green area.



The middle school science club at the Athens Science Festival exhibiting their work next to university students.

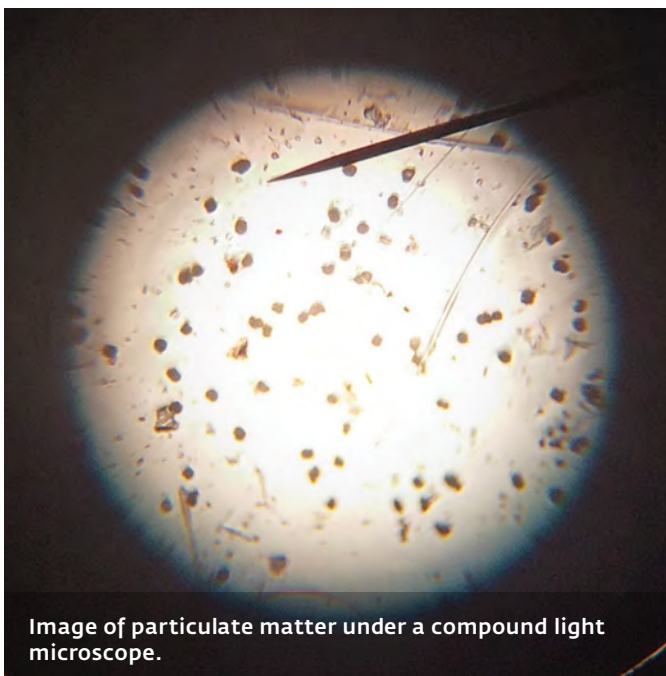
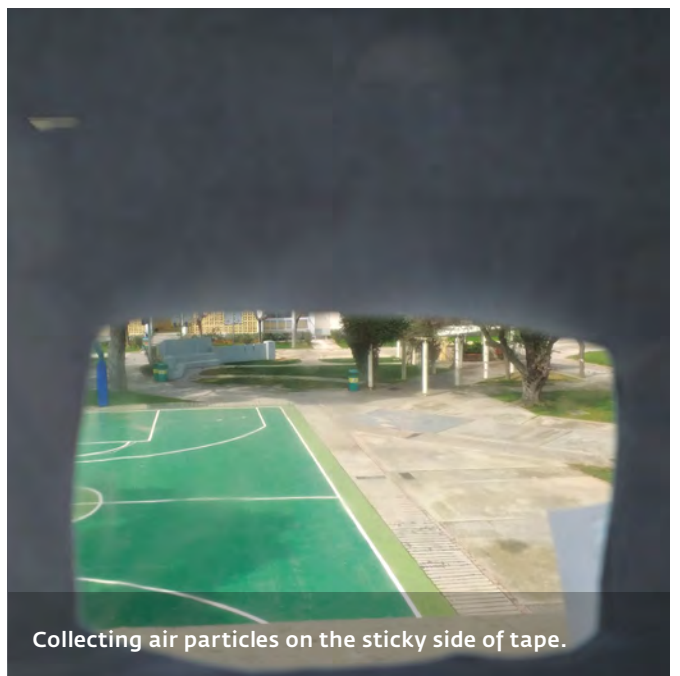


Image of particulate matter under a compound light microscope.



Collecting air particles on the sticky side of tape.

body can eliminate the larger particles of particulate matter, it can not eliminate the smaller ones.

Through their presentation and data collection, students aimed to shed some light as to why air matters! The various techniques used, the analysis of the data, the research of the topic, the display of the experiment and the presentation to an audience were all parts of the process that made this an enjoyable experience, as seen by their reflections below:

“ I enjoyed being part of the science community; not only were university students there but also high school, middle and elementary school students as well side by side,” Peter, Grade 7

“I was happy to participate and have the opportunity to share our experiments. The experiments we performed were really interesting as I learned many techniques”, Anoe, Grade 6

“It was nice to participate in the science festival, showing your work and seeing other people’s work is what science is also about,” Celia, Grade 8

“I enjoyed learning all these techniques. I also enjoyed presenting in front of others our experiment”, Theofano, Grade 8

“I enjoyed seeing all the cool experiments on display!” Crystal, Grade 9

Middle School adventures

WHAT IF.... I could make people disappear?

■ by Themis Soukakou, Middle School Student

The wonderful world of Physics has so many things to teach us! It’s endless, magnificent, yet full of mystery and surprises. When we decided, with my brother George, to participate in the “Athens Science Festival” we wanted to do something intriguing that would attract the audience and, at the same time, something that would have an interesting physical interpretation. Searching through the many fields of Physics and its aspects in everyday life, we concluded that an optical illusion would be an ideal project.

We decided to unravel the magic behind... disappearing a human body. Experimenting with simple materials, like a set of mirrors, a table, and a backdrop, we managed to create the illusion of a head that stands on a table without the rest of the body being visible.

Based on the fact that the rays of light can travel only on straight lines we observed the reflection of light from a surface of a mirror and the importance of the visual field.

According to the law of reflection, when a ray of light reflects on a smooth surface, the angle of reflection is equal to the angle of incidence. This fact helped us to find the ideal position at which the mirrors should be placed, in order to create the perfect visual field for an observer that would stand in front of our set up.

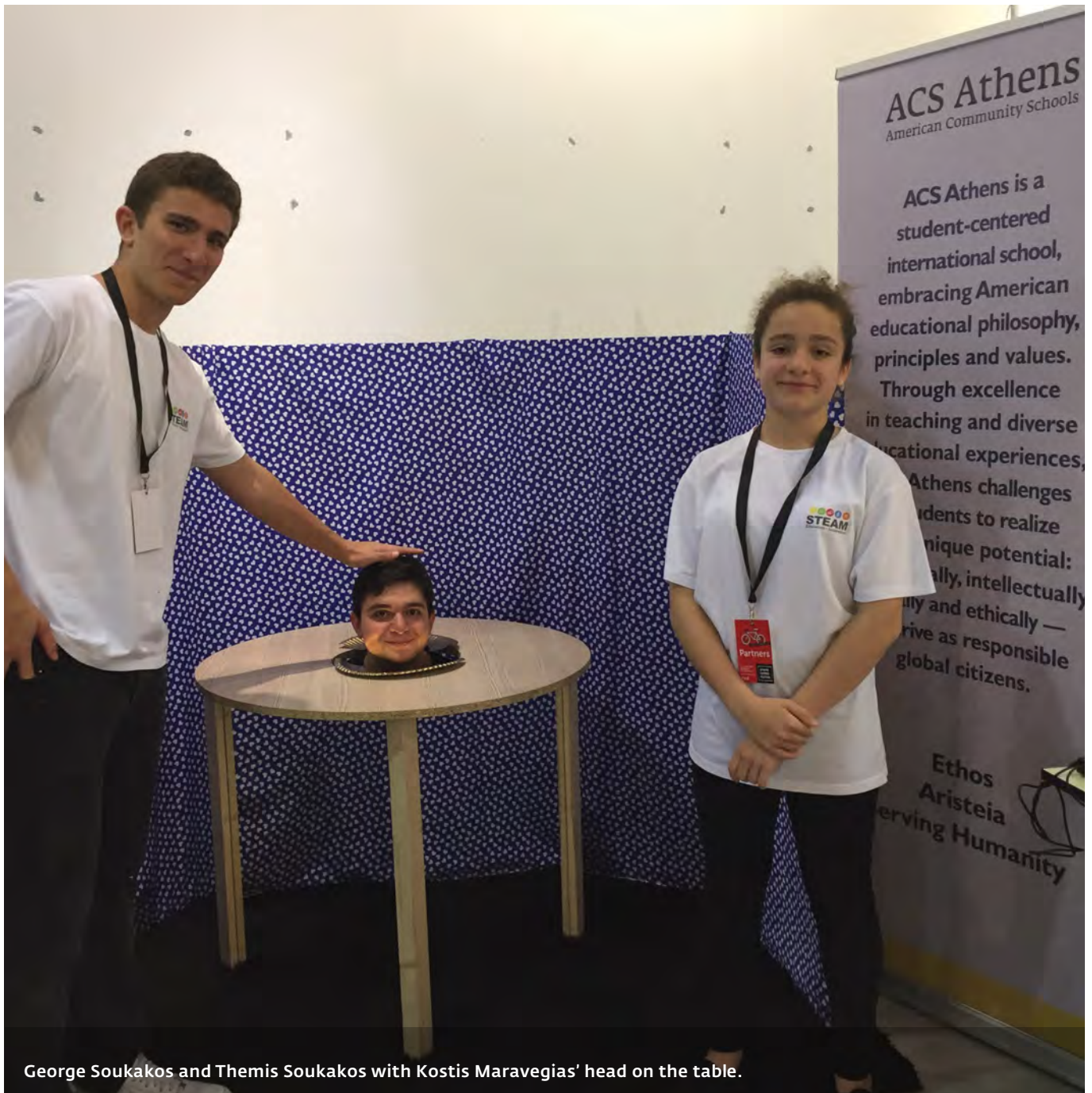


Middle School students at the Athens Science Festival

This would allow someone to see only the images that were reflected from the floor and the surrounding backdrop, creating the impression that there was just a table with a head placed on it!

On April 5, 2019, we took our highly interactive demonstration to the Festival, where tens of students from all over Greece and in all ages participated, took pictures and discovered the secret behind our activity.

This was a great experience for us, too, as we had to make several trials with different materials, dimensions, and setups; we had to fully understand the theory behind our optical illusion, and finally, we had to come up with an experience that so many students enjoyed –including us.



George Soukakos and Themis Soukakos with Kostis Maravegias' head on the table.

cepts but in different ways.

Interest: When a student's interests are tapped, that student is more likely to be engaged and to persist in learning. ex Project-Based Learning

Learning profile: refers to how a student learns best (journals, videotape presentations, role plays, oral histories, or student designs and creations)

We need to focus on the **characteristics** of our learners:

Visual Learners:

- ⊙ use visual materials such as pictures, charts, maps, graphs, write a story to illustrate ideas etc.
- ⊙ visualize information as a picture to aid memorization
- ⊙ use color to highlight important points in text
- ⊙ use multi-media (e.g. computers, videos, and filmstrips)

Auditory Learners:

- ⊙ participate in class discussions/debates
- ⊙ make speeches and presentations
- ⊙ use a tape recorder during lectures instead of taking notes
- ⊙ read text out aloud
- ⊙ create musical jingles to aid memorization
- ⊙ create mnemonics to aid memorization
- ⊙ use verbal analogies, and storytelling to demonstrate ideas

Tactile/Kinesthetic Learn:

- ⊙ move around to learn new things
- ⊙ use materials, manipulatives to learn new concepts
- ⊙ chew gum, listen to music while studying
- ⊙ use bright colors to highlight reading material
- ⊙ dress up a workspace with posters

In response to the learner characteristics of readiness, interest, and learning profile, teachers can differentiate, or modify, learning experiences in the three areas of content, process, and product.

Content refers to what students need to learn: the major concepts, principles, and skills

Process refers to ways in which the content is taught: the activities that help students understand and eventually own the concepts and skills being taught.

Techniques for Differentiating Instruction

- ⊙ To manage effectively the differentiation of process, teachers need to employ a range of instructional strategies.
- ⊙ Setting up stations in the classroom where different learners can work simultaneously on various tasks. Such stations naturally invite flexible grouping.
- ⊙ Structuring problem-based learning to have students actively solve problems, either individually or in small groups (this also supports building a

Middle School adventures

Researching and Collaborating for the Best Fit Instructional Models

by Dora Andrikopoulos,
Middle School Mathematics Faculty

My work this year has revolved around finding new pathways to reach my students, to bridge gaps, and to find alternative teaching practices to help them reach their highest potential.

Through my Action Research, I came across some significant questions.

How can classroom teachers maximize the learning potential of their students while, at the same time, attending to differences among them?

Instead of expecting learners to adjust to the lessons they plan, teachers need to plan their lessons to adjust to the learners at hand.

Research and Evidence indicate that students are more successful in school and are more engaged if they are taught in ways that are responsive to their readiness levels, their interests, and their learning profiles.

Readiness refers to a student's knowledge, understanding, and skill related to a particular sequence of learning. (Tiered activities, small group sessions, one-to-one teacher or peer support)

Using diverse instructional processes to teach the content. In this way, all students learn the same con-



Learning Products: Art Design

- community of learners).
- Assigning tiered activities to allow learners to work on the same concepts but with varying degrees of complexity, abstractness, and open-endedness.
- Using entry points so that learners can explore a topic through as many as five avenues: narrative (presenting a story), logical-quantitative (using numbers), foundational (examining philosophy

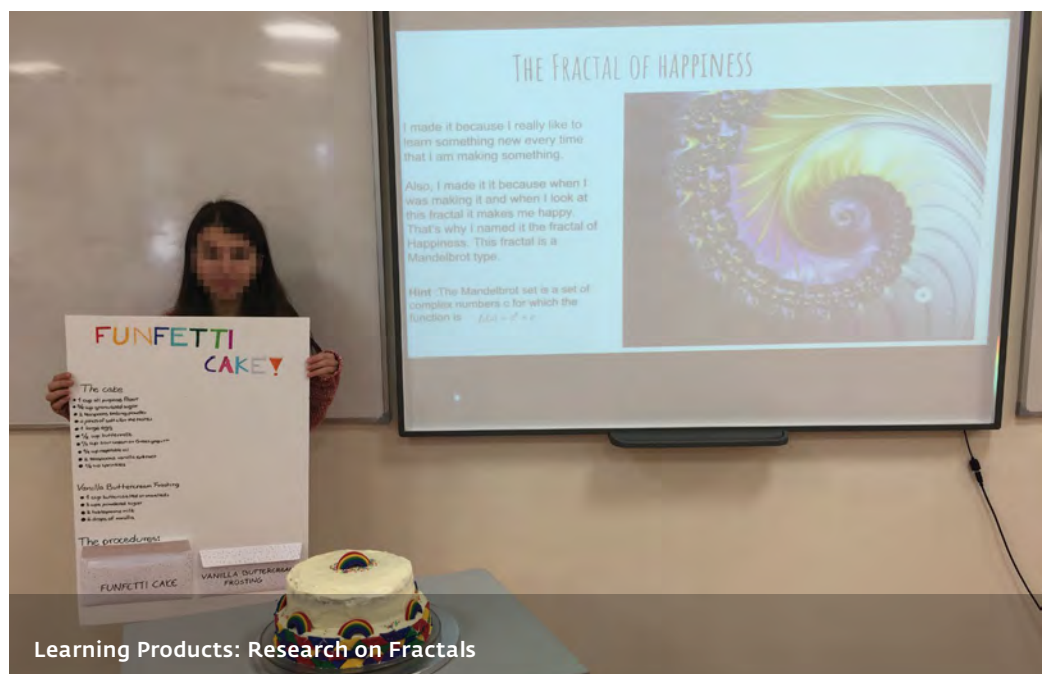
and vocabulary), aesthetic (focusing on sensory features), and experiential (hands-on).

- Using choice boards from which learners can select one of several work assignments that are printed on cards and affixed to the choice boards.
- Employing compacting: teachers assess learners' knowledge and skills before beginning a specific unit of study and allow learners who do well on the preassessment to move on to more advanced work.
- Chunking, or breaking assignments and activities into smaller, more manageable parts, and providing more structured directions for each part.
- Encouraging students to use different tools to perform the same task: paper/pencil, manipulatives, computer. Using flexible pacing to allow for differences in students' ability to master the key concepts.
- Encouraging independent study for students who want to work on their own on topics of interest to them. Using portfolios as a means for reflecting on student growth over time.

Products allow students to demonstrate whether they have learned the key concepts and skills of a unit and to apply the learning to solve problems and take action.

Examples of products include a written report, an oral presentation, a group discussion on key concepts, a short book in which the key concepts are explained and described, a game centered around the characters and theme of a book, or an event planned within a specified budget.

We can assess our students' performance during activity and evaluate the appropriateness of our differentiation techniques used.



Learning Products: Research on Fractals

An example matrix for performance objectives based on Bloom’s Taxonomy and Knowledge Dimensions

Performance Objectives

Knowledge Dimensions	Remember	Under-stand	Apply	Analyze	Evaluate	Create
Facts	list	para-phrase	classify	outline	rank	categorize
Concepts	recall	explain	show	contrast	criticize	modify
Processes	outline	estimate	produce	diagram	defend	design
Procedures	reproduce	give an example	relate	identify	critique	plan
Principles	state	convert	solve	modify	conclude	revise
Meta-cognitive	proper use	interpret	discover	infer	predict	actualize

The role of the teacher from dispenser of knowledge to facilitator of learning

A **differentiated** classroom offers appropriate levels of challenge according to learners’ abilities, interests, and preferred learning profile, and maximizes learners’ potential.

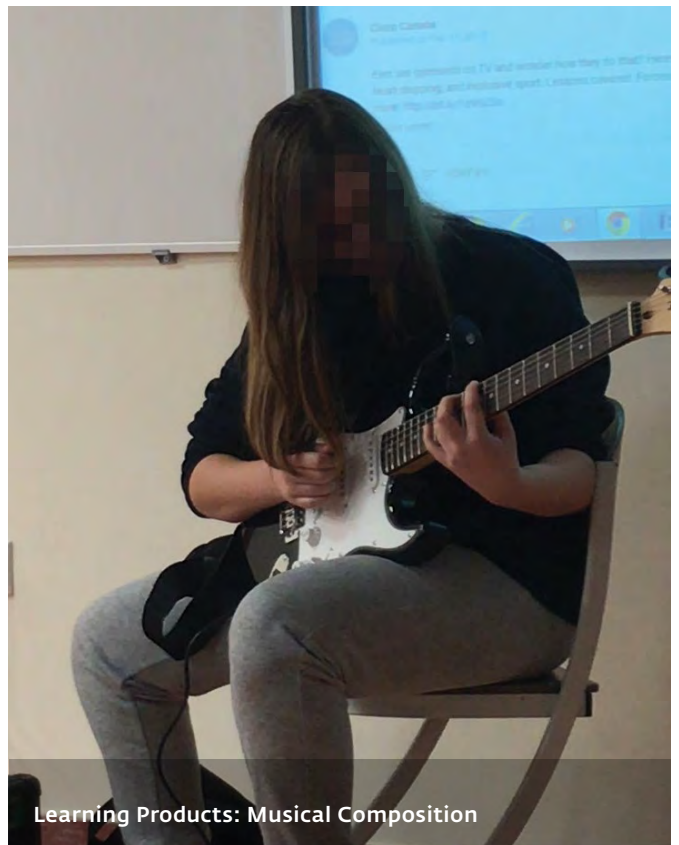
The learning environment must make students feel emotionally safe before learning can take place. This means that teachers demonstrate and encourage openness to and respect for student differences and that they value all learners. They provide places within the learning environment where individual students can work quietly and other places that invite student collaboration.

Differentiated instruction is “the process of matching learning targets, tasks, activities, resources, and learning support to individual learners’ needs, styles, and rates of learning.” Differentiated instruction is designed to provide various learning opportunities for students who differ in their readiness levels (what they know, understand, and can do in relation to the content), their interests (affinity, curiosity, or passion for a topic), and their learning profiles (which may be shaped by their intelligence preferences, gender, culture, or learning style). By differentiating instruction, teachers can (a) challenge all learners by providing varying levels of difficulty, (b) vary the degree of scaffolding, and (c) vary the way in which students work.

The intent of differentiated instruction is to maximize each student’s growth and individual success by meeting each student where he or she is at the time and assisting them in the learning process.

“We ought to think about different methods being appropriate for children at different stages in their development.”

Timothy J. Landrum and Kimberly A. McDuffie University of Virginia



Learning Products: Musical Composition

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Timothy J. Landrum & Kimberly A. McDuffie (2010) *Learning Styles in the Age of Differentiated Instruction, Exceptionality*, 18:1, 6-17, DOI: [10.1080/09362830903462441](https://doi.org/10.1080/09362830903462441)



Middle School adventures

A Greeting to the Middle School graduates

by Dr. Peggy Pelonis, Vice President

The Middle School Graduation Celebration took place on June 14th, marking the transition from Middle School to High School for students. The events' special guest and keynote speaker was Mr. Rob Palm, ACS Athens parent, retired Captain of the US Navy, retired US Senior Defense Official and Defense Attaché in Athens, Greece and Senior Vice President for Sylipsis Corporation's largest and most ambitious project yet, the Athens Maritime Innovation Center. Mr. Palm addressed the Middle School class outlining their current accomplishments and future goals with warmth and enthusiasm. The class of 2019 also heard from Dr. Stefanos Gialamas, ACS Athens President and Mr. Stelios Kalogridakis, Middle school Principal.

Awards were introduced by Dr. Peggy Pelonis, ACS Athens Vice President and Master of Ceremony and included the following:

Art: Vittoria Alocci

Music: Kaya Ketter

Language Arts: Rose Papadopoulos

ESL: Amit Shahar

EFL: Yaxuan Li, Arabi: Mohammad Ghoneim

Chinese: Zehe Lan, German: Dimitrios Skikos

Greek: Kaya Ketter

Greek Language Arts: Deniz Karvouni

Spanish: Angeliki Sieti

Mathematics: Zoi Lazaridi

PE: Kaya Ketter

Science: Rachel Fields

Social Studies: Yoshinori Maejima

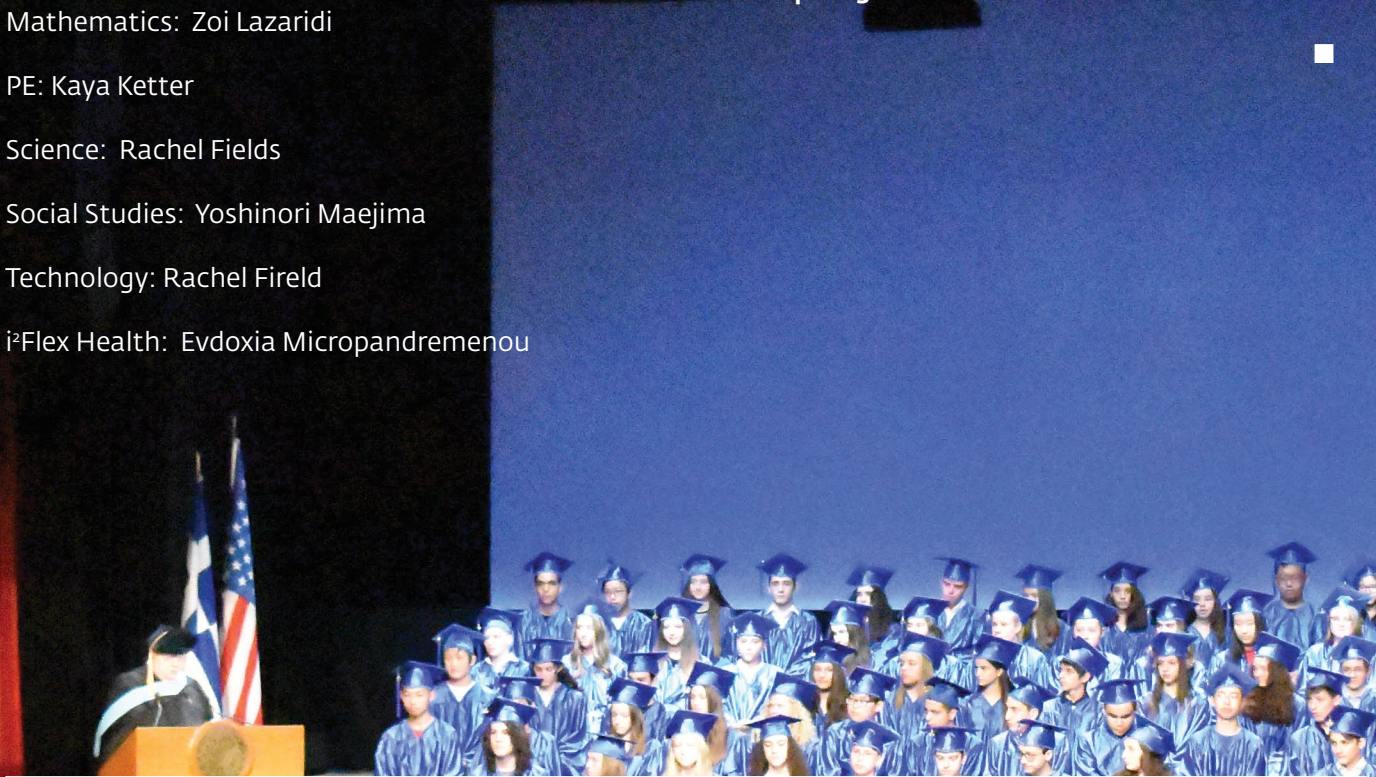
Technology: Rachel Field

iFlex Health: Evdoxia Micropandremenou

Special Awards included:

The Warren Shepard award: Mohammad Ghoneim,
the Principal's award: Kanella Rousou,
the Counseling award: Zehe Lan
and the Citizenship award: Alice Goule.

**All the best to the Middle School class of 2019,
Class of 2023!**



VANDRING UGGLA

Glove puppet

4,99€



LILLEPLUTT

Soft toy

7,99€

Knowledge is curiosity's best friend.



groups to create Action Plans based on the UN Sustainable Development Goals to create a service learning project they are interested in. Furthermore, each grade level is involved in one service learning field trip.

The ACS Athens Middle School has set a goal to create a culture of service while involving 100% of the students in service learning opportunities.

Social awareness

Middle School Service Learning 2018-2019

by Christina Bakoyannis, Middle School Faculty and Service Learning Coordinator

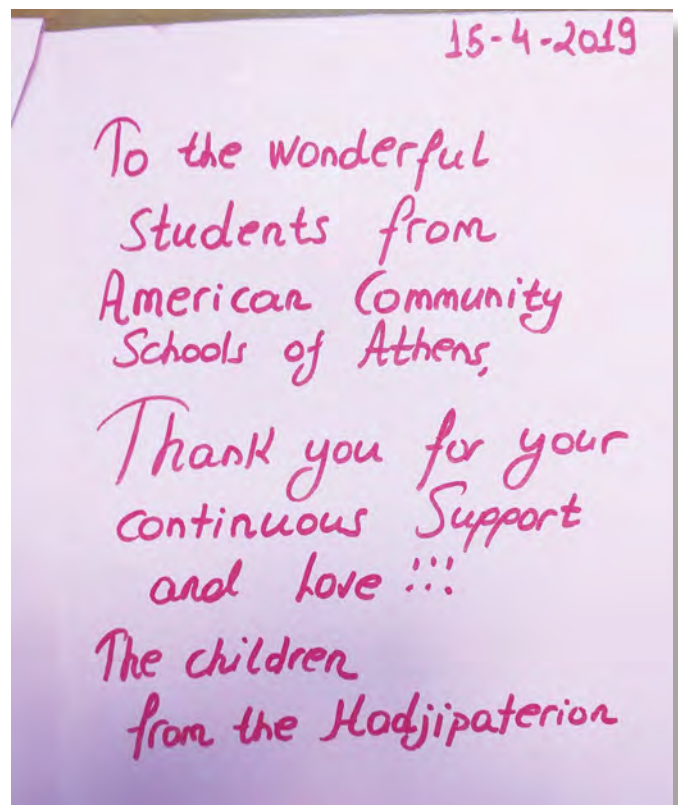
An Introduction to Service Learning

A Service learning is defined as, "learning that actively involves students in a wide range of experiences, which often benefits others and the community, while also advancing the goals of a given curriculum." (Center for Teaching and Learning, University of Washington)

Service learning is a teaching method that enables students to learn and apply academic, social, and personal skills to improve the community. It involves both actions and learning as it allows students to grow as individuals and develop a lifelong ethic of service.

There are four types of service learning work: direct service, indirect service, advocacy service and research-based service. Direct service allows students to come in direct contact with the people in need. Indirect service involves working behind the scenes. Advocacy service creates a public awareness campaign in order to educate others about topics of public interest and it also aims to create action on issues that impact the community. Research-based service gathers and presents information on areas of interest and need.

Middle schools students work with their advisory



United Nations Day - October 24

“The Global Goals for Sustainable Development”

Continuing the transformation of a Commemorative Event to a Service Learning Experience

On Wednesday, October 24, 2018, the ACS Athens Middle School was involved in the celebration of the United Nations (UN) Day. UN Day is a global event observed annually and celebrated every year on October 24th, in order to recognize the importance of the work of the UN. This is a traditional event in the middle school, which in accordance with our mission statement, allows our students to “thrive as responsible global citizens” with ethos.

The day focused on the “The Global Goals for Sustainable Development”. On this day, students worked within their advisory classes and were assigned to a Global Goal related to ending poverty, inequality, injustice, or protecting the planet. Students focused on a local issue that needed our attention and contribution, and that addressed their assigned UN Sustainable Development Goal. The focus of the day was for students to develop an action plan for their goal based on a local issue. This was the second year in a row that the Global Goals became the focus for the Middle School UN Day celebration and transformed the experience into a yearlong event.

Sixth grade students focused on the goals for the protection of the planet, seventh grade students focused on the goals around poverty, and eighth grade students focused on the goals that relate to inequality and injustice.

Social awareness

Middle School United Nations Day

by Christina Bakoyannis and Sevi Konioussi
Middle School Faculty & United Nations Day Coordinators

THE GLOBAL GOALS For Sustainable Development





Students from Ms Konioussis Advisory along with the Service Leaders Club after the Freattyda beach clean-up

The aim of this work is to enable and sustain students to become architects of their own service.

Commendable Middle School Advisory Action Plans

6th GRADE ADVISORY ACTION PLAN:
Boroume ("We Can") Organization
 Advocacy and Research-based Service

Teacher/Advisor: Ms. Sevi Konioussis

UN SDG: Responsible Consumption and Production

6th GRADE ADVISORY ACTION PLAN:
HELMEPA (Hellenic Marine Environment Protection Association)

Beach Clean-Up
 Direct Service

Teacher/Advisor: Ms. Sevi Konioussis

UN SDG: Responsible Consumption and Production

7th GRADE ADVISORY ACTION PLAN:
Wheelchair-Friendly Campus
 Advocacy and Research-based Service

Teacher/Advisor: Ms. Venie Gaki

8TH GRADE ADVISORY ACTION PLAN:
 Habibi Center (www.habibicenter.org)
 Indirect Service

Teacher/Advisors: Ms. Labrini Rontogianni and Ms. Evi Sotiropoulou

The grade 8 advisory group communicated with the (Habibi) organization. They were in charge of identifying the needs of the organization and creating an action plan. They built awareness about the work of the center and started a drive for school supplies since that was the identified need of the organization. Students in the picture are sorting through the school supplies collected.

United Nations Sustainable Development Goals (SDGs)

In 2015, at a historic UN Summit, all United Nations Member States adopted the 2030 Agenda for Sustainable Development for a more sustainable future based on peace and prosperity for people and the planet. On the 1st of January 2016, the Sustainable Development Goals (SDGs), 17 in total, officially came into force. These goals address the issues of injustice, poverty, equity, climate change and environmental degradation. They are all interconnected. The goals call all countries to action so that they can be achieved by 2030.



Straight to work! Let's plan some trees!



Students developing their Action Plan on the SDG Life on Land with a focus on helping the people and environment affected by the Attica summer wildfires of 2018



6th Grade Students and teachers with Greek celebrity performer Sakis Rouvas

6th Grade Level Service Learning Field Trip Tree Planting on Penteli

Proposal from a 6th Grade Advisory Action Plan

UN Sustainable Development Goal 15 - Life on Land aims to achieve the protection, restoration and promotion of the sustainable use of terrestrial ecosystems by reducing deforestation and planting trees to reforest affected areas. Effects on terrestrial ecosystems can degrade the land and impact biodiversity loss and endangered species.

On March 7th, 2019, sixth grade students joined the Association of Municipalities for the Protection and Restoration of Pentelikon Mountain (SPAP) in order to plant trees on the mountain of Penteli, specifically around the Doua Penteli Monastery location.

The idea for the field trip was sparked by the work of Ms. Christina Bakoyannis' and Ms. Zacharo Gialamas' advisory class. The students in this advisory developed action plans to address the needs of people and the environment after the devastating wildfires that took place in Attica in the summer of 2018. Students also researched and created awareness powerpoints about the impact of wildfires on the environment and people and how they can be prevented.

7th Grade Level Service Learning Field Trip Lyrion Orphanage and Marathon Lake

Linking to the Action Plans

On Thursday, December 20th, the seventh grade students took part in a service learning opportunity. The first part of the field trip included a visit to the coastal areas of Attica that were devastated by the wildfires of the summer. Students provided indirect service by delivering items and goods that were in need to the Lyrion Orphanage as well as Christmas gifts.

8th Grade Level Service Learning Field Trip The Hadjipaterion Center for the Rehabilitation and Support of the Child

An Academic Year Long Collaboration

The 8th grade students had a unique opportunity this year to build meaningful and loving connections with the children of the Hadjipaterion Center. (<http://hadjipaterioncenter.com/>). During their health class, ACS Students learned about the difficulties that children at the Center face. Then, they were assigned one child to buy a gift for or to make a donation for school supplies. All gifts and donations were wrapped with care and the names were written on the gift that Santa Claus distributed. Students were invited to attend the holiday celebration at the Center, to share their gifts and also spread holiday cheer as the 8th grade choir spread festive cheer by singing during the celebration. The Christmas party's theme was: "Do not look at what we can not do, look at what we can do".



8th grade students at The Hadjipaterion Center for the Rehabilitation and Support of the Child



8th grade students participate in a service learning opportunity through the "Reading To The Others" volunteer organization

The visit also had a second component in April. The focus of the second visit was to have a one-on-one interaction with the Center's children. ACS students joined their classrooms in order to be part of the learning process. At the end of the classrooms visits, students had a discussion about the experience with the center's psychologist.

"Reading to the Others" Service Learning Opportunity

An example of direct service with committed work
 "...So that they can listen through our eyes and read through our voice!"

(from the Reading To The Others Website: <https://www.giatousallous.gr/en/homepage/>)

Students in the Greek 8 LA classes were given the opportunity to participate in a service learning opportunity through the "Reading To The Others" voluntary organization (<https://www.giatousallous.gr/en/homepage/>). This organization was founded in 2015 and has over 3,500 volunteers at the moment. The purpose of this organization is to read aloud to people who cannot read for themselves due to sight problems, handicap or illiteracy.

Nine student-volunteers committed to receiving eight hours of training from the organization in order to read stories to the elderly. Students participated in the training outside of school hours and thus gained the skills necessary to read aloud and also feel confident in the process. Students presented their experience as volunteers of the "Reading to the Others" organization at the Through Reading, I Change the World! Festival that took place on Sunday, April 14th, at Syntagma Metro Station.

This celebration was part of the Athens 2018 World Book Capital initiative.

Students finally visited the Megalochari Elderly Home in Moschato and presented the stories they had prepared. The elderly paid close attention to the students and felt joyful to be surrounded by the younger generation. After the students told their stories, the elderly wanted to share stories of their own. Some wanted to share their life stories and others wanted to sing for us. It was hard to say goodbye and a sense of love stayed with all of us as we departed.



Social awareness

Lessons of Hope from the Rainforest

by Annie Angelides, Administrative Assistant to the Vice President

One doesn't have to look far for worrying messages of climate change and environmental deterioration. These messages can instill a sense of hopelessness in even the most glass-half-full optimists. Far worse, it can quickly strangle the dreams and aspirations of our younger generation, a phenomenon which portends only grim projections.

Thankfully there is a message that comes from deep within the rainforest of Africa that says: We are all interconnected and if we all work together towards one goal of sustainable living, then we have a chance. But we must all work together, from all different fields, committing ourselves to large or small tasks with diligence and passion. This is what Dr. Jane Goodall, the 85-year-old primatologist, anthropologist and ethologist turned activist had to say to a lucky group of ACS Athens elementary and middle school students in December of 2018 during her "Reasons For Hope" tour in Greece.

In 1991 she founded Jane Goodall's Roots & Shoots to empower and encourage youth of all ages to pursue their passion, mobilize their peers and become the leaders our world needs to ensure a better future for people, animals, and the environment.



Dr. Jane Goodall's inspiring speech to ACS Athens students during her "Reasons for Hope" tour in Greece



Dr. Jane Goodall with students

ACS Athens Students as Agents of Social Change

ACS Athens students had the opportunity to present Dr. Goodall with their ongoing social and environmental projects. These projects were aligned with the guidelines of Roots & Shoots educational framework, a framework offering students the chance to work on pressing environmental issues, cultivate their problem solving and teamwork skills, become members of an international network and most importantly become themselves agents of social change for our habitat. The pioneer primatologist and anthropologist took the time to review every project and was interested in collecting feedback from the students as well.

“When you get to millions and billions of people making ethical choices, then you start making a better world.”

Following the project-based discussion, Dr. Goodall offered inspiration and words of wisdom to students, faculty, and staff and explained why she created Roots & Shoots: “I was traveling around the world seeing young people with no hope. They believed that older generations had compromised their future, and there was nothing to do about it. Indeed we have compromised their future. It is not true that ‘we have not inherited the planet from our parents but borrowed it from our children.’ We have stolen it and are stealing it still. But I do not believe that there is no chance left; I think there is a window of time. If we all get together, we can start healing some of the scars, and that is what Root & Shoots is all about: to understand that alone you cannot make much difference, but when you get to millions and billions of people making ethical choices, then you start making a better world”.

I was honored to be able to share a few minutes with Dr. Goodall as we arranged for a student-led interview in the ACS Media Center. These were my observations; she is a human deeply engaged with her living experience. When she speaks, she speaks slowly and deliberately, she looks deeply into your eyes, and that look has wisdom, substance, information beyond words. That look makes you feel as if you matter, that what you do will have an impact on the world every single day of your life. Although a delicate silver-haired woman of 85, she maintains the enthusiasm, and wonder of a child, and the strength and audacity of a person pursuing a noble purpose. She remains, a beacon of hope and direction, and it is our duty as educators to continue her legacy.



Social awareness

What is Mindfulness?

by Patrick G. Karantinos, Body Mind Balance

There are many definitions on mindfulness coming from its wide range of practitioners both philosophical and scientific. Its roots stem from Buddhism so it would be proper to first see how the Vietnamese Buddhist monk Thich Nhat Hahn, its most famous contemporary advocate, defines it: “I define mindfulness as the practice of being fully present and alive, body and mind united. Mindfulness is the energy that helps us to know what is going on in the present moment.”¹ Dr. Jon Kabat-Zinn, on the other hand, a professor of medicine at the University of Massachusetts Medical school who “removed the Buddhist framework and any connection between mindfulness and Buddhism”²(although he was a student of Thich Nhat Hahn) says that: “Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.”³ As you can see from both definitions in order to be mindful, one must be aware of the present moment.

The next question to be answered should be: Why do we need to be aware of the present moment? There is a long list of benefits connected to mindful living and practice which have been scientifically studied, ranging from stress reduction⁴ and improvement of working memory⁵ to quality of life, depression and fatigue⁶ going all the way to ethical decision making⁷. A very succinct definition of the process, which mirrors perfectly my own personal experience, may shed



some more light on the matter.

«The process of attending to internal experiences with mindful awareness entails a shift in relation to those experiences. Rather than identifying with thoughts and emotions as accurate reflections of “me” or “reality”, thoughts and emotions are experienced as passing mental events - which may or may not be valid - occurring in a larger field of awareness (Teasdale et al., 2002). This shift in perspective is thought to prevent escalation of dysfunctional cognitive and emotional patterns and allow for the occurrence of more adaptive responses. Therefore, mindfulness may promote well-being not just by changing the content of thought, such as reducing the frequency of negative thoughts or emotions, but also by shifting the relationship to negative thoughts and feelings themselves.» 8

Having said all that, it is now important to point out that mindfulness is not an intellectual endeavor. One might read about it and understand it, but if he or she does not delve wholeheartedly in the actual practice, understanding will remain superficial at best, its benefits forever out of reach.

- ⊙ *But how do I practice?*
- ⊙ *I wish I could do it, but there just never seems to be enough time.*
- ⊙ *Life just carries me away.*
- ⊙ *I don't need to add one more thing on my to-do list.*

The most common misconception is that one needs to allocate extra time in order to be mindful. Of course, practicing mindful habits like Tai Chi or Yoga, or gardening or any other sort of activity which helps

us stay in the present, is a great way of relaxing while also strengthening our focus muscles. Being mindful, however doesn't necessarily entail any of those activities, just like having a healthy eating habit doesn't necessarily require us to eat food supplements. Mindfulness is not what you do, it's how you do it. If you are completely focused in the present, mind and body, then scratching your head will be a mindful activity. On the other hand, if your mind is wandering, worrying about the past or the future, constantly judging yourself and others, then you can sit still in the lotus position on the Himalayas for a year, and you still will have achieved nothing.

So as a closing note, allow yourself to take a moment and bring your awareness to your body as you are holding this magazine.

Is your body straight? If not, correct your posture. Before you carry on reading, take 5 deep, relaxing breaths.

I said 5 breaths, don't cheat. Now, bring your attention to your senses, one at a time, for a few breaths. First, notice the feeling of your hands, holding the magazine. Just the feeling, observe any judgment that arises (it's light, heavy, soft, hard etc.) ignore it and bring your attention back to your hands holding the magazine. I know it's hard to do anything without that commentator, but it is possible and at the beginning it will only be one or two seconds, so do not add frustration if you are not able to do it for more than that. When frustration arises, observe and bring your attention back to the activity at hand, as it were.

Now, bring your attention to your eyes looking at the

paper. Forget about the meaning of the words, just look at them as if they were a work of art (which they are) or a beautiful scenery. Do this for a breath or two.

Now observe the sounds around you. Do not judge or try to discern what they are. Just listen, only for a few moments.

Finally, observe your sense of smell. Do you have anything good cooking in the kitchen? Does the dog need another bath? Do not linger on these judgments, just observe any smell that come your way and when a thought comes, observe it and shift your attention back to your nose.

Bring back your attention to your body posture. Sit up straight but not too stiff.

Take a few breaths. How does that feel?

As you can see, mindfulness can be practiced at any time, regardless of how busy we are. No matter the activity, we can always take a few seconds and ground ourselves in the now by observing our bodies, breaths and senses. As we slowly but steadily progress building up non judgmental focus, we can then go on to observe thoughts and emotions, realizing the true driving force behind patterns of behavior. And that is the first step towards real understanding. It is a long and arduous journey, but definitely one worth taking. For if we do not know who we are, then how can we ever hope to do what we are meant to do? And as long as we are not in synch with what resides in our hearts and minds, happiness and fulfillment will always be in the next activity, vacation, raise or promotion and never now.



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Social awareness

The Kinonos (Κοινωνός) Club and the years ahead...

by Lydia Pinirou,
ACS Athens graduate, Class of 2019

The 2019 Commencement ceremony, the most anticipated event of the year, has come to an end. It was my own graduation as well. The journey has been long, and I must admit, a beautiful one, for sure. My time at ACS Athens will remain etched in my memory bank for many years to come. By far, not always easy, but certainly always interesting and I know that in the process I have grown tremendously.

The accumulation of knowledge and information is undeniable, though I must admit I didn't always see the value in everything I learned, I acquired fundamental skills however, which no doubt, developed my personality. The structure and the philosophy of the school encouraged me to care about society and its people. Will this make me a better global citizen in the future? I don't know, but I believe that the type of thinking that has been encouraged throughout my years at ACS Athens is now a part of me and thus ingrained in my personality.

In this context it was only natural for me to become even more sensitive to the challenges and needs of other people. During the prolonged financial crisis which Greece faced, I was increasingly concerned

about the people who lost their jobs and fortunes and which led them to become homeless. The number of these homeless people kept increasing during the crisis. I thought that we cannot continue living our lives pretending that they do not exist. I wanted to do something to help these people. I thought of forming a club in our school through which we would interact with people on the streets frequently and would listen to their stories, in addition to offering food and clothes. I felt it was extremely important to show to these people that we have not forgotten them; we have not ignored them. This, I thought, would maintain their hopes for a better future, alive!

With the help of my very supportive advisor, Ms. Pit-tas, the idea came alive and I started the club, which I called ΚΟΙΝΩΝΟΣ (Kinonos) from the Greek, meaning the one who participates, the one who becomes part of something. Through this name I thought that we could send a message that we are aware of the existence of homeless people and want to participate in doing something about them and also want them to know that they are still part of our society and we want them to participate as well!

Despite some initial reactions, the ΚΟΙΝΩΝΟΣ club started and continued successfully with the support of students, teachers and the administration. More than 70 students joined initially, a record number for a school club. We had our weekly mission; every Thursday night we visited and interacted with the people on the streets. I heard endless comments from participants about what a very rewarding experience it was, how much everyone learned and how we were able to put our biases aside. Comments from the people on the streets also informed us that our taking time to interact was more important than the food and clothes at times, as it restored their hope in humanity and their hope that things can change.

ΚΟΙΝΩΝΟΣ is just at the beginning of its path. I intend to carry the idea and vision with me, and make every effort to develop it further. However, it is also my wish to see it continue at ACS Athens where it began. I'm happy to know that there are students who wish to continue leading it and I will stay in close touch. It is important for the school to have a club like ΚΟΙΝΩΝΟΣ, and support from everyone is necessary to keep it successful and effective. I am grateful to ACS Athens for giving me the desire to make a difference, the confidence to proceed despite doubts, and the support to see it through.

Best of luck to those who will continue.



MEMBER SCHOOL PRESS RELEASE



AUGUST 2019

ACS ATHENS GRADUATE, LYDIA PINIROU, RECEIVES THE INAUGURAL ECIS UNIVERSITY SCHOLARSHIP

Class of 2019 graduate awarded for her academic achievement and outstanding civic responsibility work.

[ACS Athens](#) is proud to announce that Lydia Pinirou, ACS Athens graduate, Class of 2019, has been awarded the Educational Collaborative for International Schools (ECIS) inaugural University Scholarship. Ms. Pinirou will utilize the scholarship as a first-year student at the Royal Holloway University of London.

The ECIS University Scholarship is a £10,000 scholarship for first-year university students who graduate from an ECIS member school and is awarded for the first time this year, as an additional way for ECIS to promote international education.

Ms. Pinirou is honored with this distinction due to her exceptional community work for the homeless in Athens through the ΚΟΙΝΩΝΟΣ school-wide service club. As the founder of ΚΟΙΝΩΝΟΣ club, she inspired and led more than 70 of her fellow students to visit homeless at the center of Athens every Thursday, to provide personal company and serve food. ΚΟΙΝΩΝΟΣ guided and supported those socially vulnerable people, guiding them through trauma and conflict while addressing and protecting their human dignity. Due to the impact of her civic work, Ms. Pinirou was invited to speak with the students from Think Global School, who also joined her in her street work, and with post-graduate students in psychology at the University of Athens. She comments on her initiative: *"It has taught me much, and it is work that I would like to continue at the university level, in order to best understand how to integrate marginalized populations into society."*

Throughout her work, Ms. Pinirou has demonstrated humility and resilience. As shared by her advisor, *"all her personal ambitions were set aside. Lydia has an admirable inner strength. She finds ways to cope with challenges and does not harp on negative things. She has a strong sense of justice and fights for fairness. [...] Anyone who has worked with Lydia will attest that her character, aims, and values are of the highest calibre."*

The Executive Director of ECIS, Dr. Kevin J. Ruth, expressed his appreciation of Lydia Pinirou wishing her all the best in her future steps: *"Her endeavor has created impact wide and far, aligning well with the ECIS mission of transforming lives through international education. As Royal Holloway University welcomes this extraordinary international school graduate in September, we have no doubt that the university will benefit from her great soul, which pushes her to question just how well we (as a society) have served the most vulnerable among us. We wish Ms. Pinirou all the best for her continued studies, and we look forward to learning how she creates a positive impact in the lives of others, embodying the spirit of international education."*

As an ACS Athens graduate, Ms. Pinirou manifests the school's educational philosophy to Serve Humanity and stands as a bright example for all ACS Athens community members.

FURTHER INFORMATION

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Social awareness

United Nations SRC Salus Club-Panel holds discussion on Transgender Care & Society

Dr. Peggy Pelonis participates in UN SRC Salus Club panel discussion: "Our responsibility as educators is to provide students with a platform where they can flourish"

by Dafni Anesti, Communications Officer

NEW YORK, NEW YORK, UNITED STATES, July 9, 2019

The United Nations Staff Recreation Council - Salus Well-being Network invited professionals from the medical, legal, mental health, and educational arena to participate in a discussion on transgender care and society. The professionals who participated in the discourse provided an in-depth and fruitful discussion by sharing their broad knowledge from their



UN Panel Discussion, July 2019

diverse standpoints. The forum aimed to inform, educate, and discuss interdisciplinary medical care to transgender and gender non-binary people, fostering equality.

Dr. Peggy Pelonis, author, psychotherapist and Vice President of ACS Athens was among the distinguished guest speakers of Susanna Bastarrica, President of the UNSRC Salus Club and Yanna Darilis, Journalist, Producer, Panel Moderator and co-organizer. The panel was spearheaded and led by Dr. Leonid Poretsky, Director of Endocrinology of Northwell, and the Friedman Transgender Program for Health and Wellness, Northwell Health Lenox Hill. The speakers included: Deeangelys Coln, Program Coordinator, Gerald J. Friedman Transgender Program for Health and Wellness, Northwell Health, Kelly McBride Folkers, Research Associate, Division of Medical Ethics, NYU School of Medicine, Rabbi Jo Hirschmann, Director, Spiritual Care and Education, Mount Sinai Beth Israel, Noah Lewis, Esq., Executive Director, Transcend Legal, Dr. Peter Meacher, Chief Medical Officer, Callen-Lorde Community Health Center Downtown, Dr. Shervin Shadianloo, Child and Adolescent Psychiatrist, Gerald J. Friedman Transgender Program for Health and Wellness, Northwell Health, Nicole Sweeney, Division of Plastic Surgery, Northwell Health, Dr. David Whitehead, Division of Plastic Surgery, Northwell Health, Constantine Venetopoulos, Film Director of "Draw with me" and Brendon Scholl on whom the movie was about.

The panel discussion took place in the United Nations Headquarters in New York and was streamed live. The audience included educators, mental health professionals, policymakers, and interested individuals. Dr. Pelonis highlighted the need for revised guidelines across the school system: "The federal laws that protect students from discrimination exist. In Article 9, everything is in place for students to be treated fairly; however, insufficient or nonexistent guidelines are leaving school personnel exposed to misinterpretations or to making judgment calls about how to handle issues that arise."



Dr. Peggy Pelonis participating in UN SRC Salus Club panel discussion

Dr. Pelonis concluded by highlighting the vital role of educational institutes:

“We must understand our role as educators;

it is not our responsibility to judge nor to assist students in such decision making, this belongs with the individual and the family.

Our purpose is to level the field and provide a safe place for all students to receive an education in an environment of belonging and acceptance. We need to provide a platform for students to grow and develop socially, emotionally, and of course, academically.

We owe it to all students to give them a platform where they can flourish. When there is a lack of understanding or misunderstanding, it creates confusion, it breeds fear, and that cannot be good for anyone of us.

Fear marginalizes and targets people, increases violence, and creates symptomatic communities.

We need healthy communities and societies. If we start from the premise that we are all human beings and as such, we are different, and if we honor the sanctity of life, we cannot do wrong by anyone.”





Transforming Lives

Social awareness

Connecting the seemingly Unconnected and Embracing the Unembraced

by George Maltas, Faculty, Social Studies, Youth to Youth

Imagine yourself looking through a window unable to explain to someone the laborious movements of a passer-by. You cannot tell what sort of storm is raging out there and whether this person has any difficulty staying on their feet. Or imagine working with 'ghosts' in daylight. Ghosts in the form of young people who come to Greece by a ghost ship or bus, who may or may not use their real names, whose parents are either back home or are no more, who may or may not have attended school and who cannot sleep because their minds wander almost every night...

At ACS Athens, I teach Social Studies to refugee adolescents who are part of the full-time Youth to Youth Educational and Social Integration Program; a program that some people might not know of its existence. These young people are different in many ways. Not all have fled their countries for the same reasons. Some come from different countries. Others come from the same country, but from different castes and speak different languages. Some have nev-

er had any formal education in their lives. Some have trouble adjusting their writing from left to right, the majority can hardly use the English language, and none have been in a classroom with students of the opposite sex.

I had had previous valuable experience working with some of these kids during the part-time Y2Y program on Saturdays. The vision is to introduce the concept of wellness as well as that of academic learning to integrate them socially. Nevertheless, the idea of helping underprivileged youth on a full-time basis gave a new meaning to my being an educator.

The model to be followed was there, the Global Morfosis Educational Paradigm (gMp) developed by ACS Athens president Dr. Gialamas, embodying growth and development in terms of building a student's character (known in Greek as *ethos*) emotionally, psychologically, creatively, socially, imaginatively, physically, intuitively, spiritually as well as intellectually. The human resources were there too. Steve Medeiros, my great mentor and teacher, Julia Tokatlidou (the Director and the heart of the Y2Y program) and Angela Chamosfakidis, were adamant: "You are experienced, you love young people and teaching. You know the subjects. Just hug them and follow your heart!"

Initially, I tried three basic teaching approaches: the teacher-centered approach in which the teacher is the dispenser of knowledge, the constructivist approach in which learners are assisted in their own construction of knowledge, and the transformational approach in which the learner undergoes changes on many different levels (cognitive, emotional, social, intuitive, creative, and spiritual). The latter allows both students and teachers to discover their full potential as learners, members of society, and human beings. Given the aforementioned circumstances, I quickly realized that what really worked were the transactional and transformational approaches.

Allow me to share some scattered anecdotes from my diary notes to illustrate how these worked...

Maps – History

Students had never been exposed to a map when taught History. When we started our sessions, I showed them all the continents on the map and how each continent changed through time. The first thing they realized was how long their journey was to reach the shores of Greece. Another thing that drew their attention was where countries they knew were located; such as the United States, England, Germany, and Italy. Apparently, they were curious because they would ideally want to go there someday.

Deviation – Sociology

The first topic we started working on in Sociology was deviation, and when people's actions are thought to be considered positive or negative and what the repercussions are. It was a good opportunity to talk about the School – Student Contract they had all agreed upon and signed at the beginning of the academic year to make them understand how binding it was. Then, we began talking about how deviation is perceived in everyday life in different cultural contexts. We discussed, for example, what they think of women wearing a hijab (clothing which covers a woman's head), of men or women wearing skirts and why people should follow a code of manners based on respect on the individual and society. Finally, we talked about how stereotypes were created and how easily we attach them to those who do not abide by the norms and laws of society.



Screen shot from video created by Youth to Youth students

Fish tank – History

A student sent me a video he made with his mobile phone about the three estates (socio-economic classes) in pre-Revolution France in 1789. The students had taken a walk outside the school area and what drew their attention was a fish tank at the window of a store. They stopped and started naming each fish. So, the big one was the king – the monarch, the few dark ones were the clergy, the colorful ones were the aristocrats, and the smaller, indifferent ones were the common people (commoners). Throughout the video, all of them were laughing, unwittingly feeling proud of the knowledge they had gained.

Family types – Sociology

One of the topics in Sociology was family types in Western society. When we started talking about 'family by choice' (when two men or women are together), the students couldn't believe that people of the same sex can establish a family. Many questions followed that eventually led to talking about relationships people form, interracial or not, and how babies are made. This topic lasted two weeks mainly due to the plethora of questions raised every time we talked about it.

Solidarity/Fraternity – History/Sociology

These young people were from all walks of life. They were from Pakistan, Afghanistan, Syria, Gambia, Sierra Leone, and Nigeria. The Asians consisted of people from different castes such as Panjabi, Pashtun, Hazara and those from Africa came from different tribes as well. Almost all were Muslims but between the Hazara (Afghanistan) and the Pashtuns (Afghanistan and Pakistan) or the Panjabi there existed a silent animosity due to mainly religious reasons (Sunni versus Siites).

After finishing the French and the Russian Revolution and after having extensively talked about human and workers' rights and what it means for people to unite to achieve such noble goals, I tried to put theory into practice by doing something I had seen in a 6th grade Drama class, at ACS, taught by Alexandros Hoc. I separated the students into groups of 3 telling them to perform some activities together – activities that required coming in physical contact with the members of their group. One such activity involved becoming a sandwich. In the beginning, all were very hesitant and did not want to touch each other. Several minutes later, though, not only did they perform it but they were having lots of fun too.

Nudity in ancient Greek male statues – History

In the last two weeks of the academic year, we started introducing Ancient and Modern Greek History. Part of this included exposing students to art as well. When I showed them nude pictures of statues, everybody giggled. When I asked them to explain the reason why the boys responded naturally that the private parts of the ancient Greek men were not 'enhanced' and the girls because they had never seen a man without clothes. However, when they were told that in this kind of art, the artist wanted to depict their sense of what perfection is and that they honored man's self-control and intelligence, exhibited by "a gleaming chest, bright skin, broad shoulders, tiny tongue, strong buttocks" (Aristophanes, *The Clouds*) and that large-sized genitalia was thought to be vulgar, they started asking lots of questions about what art is and why it is important in our lives. Interesting to note is the question raised by the students about why female statues were fully covered. It was again a good opportunity to talk about stereotypes and the view that Greek society had about women and, by extension, most societies throughout the ages.



Artemision Zeus (or possibly Poseidon), c. 470 BCE, found off of Cape Artemision, Greece, National Archaeological Museum of Athens.

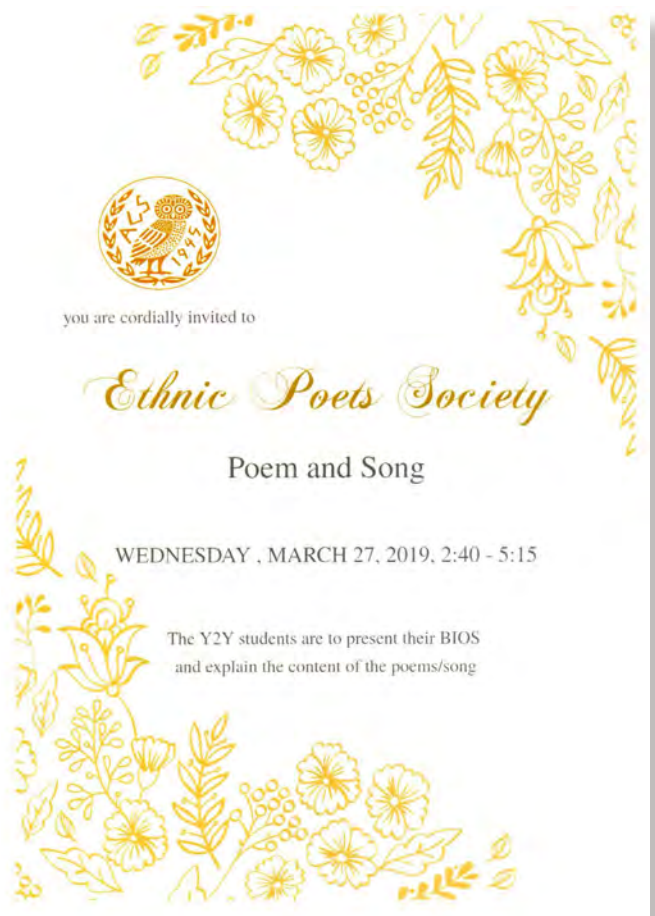
any questions posed about the poet and the poem they recited.

Saturdays

Every Saturday ACS Athens hosts a social and educational program (for the last two years) for refugee kids in collaboration with The Home Project. The curriculum involves English, Reading, Greek, Computers, Art/Music, and Physical Education. When the full-time students were told to come voluntarily to help the part-time students on Saturdays, the turnout was amazing! Almost everyone showed up and stayed until the end of the sessions, helping the other kids.

Ethnic Poetry and Ethnicity – Sociology

On March 27 ACS Athens hosted the Literacy Festival, and the Y2Y students participated in it by reciting poems in English from their countries. The students had never been part of such a project nor did they know what poetry was. It took me a month to help them get a feel for this form of art and be able to deliver the lines of their poems. In the beginning, all were unwilling to participate because they were conscientious about how they would look and sound. We decided to video-tape it and show it to the ACS community since the idea of exposing themselves to people in public made them feel very uneasy. When the day of the event arrived though, they were all anxious but ready. Some of them even wore their traditional clothes to honor the occasion. They were all prepared to answer



Volleyball/Basketball

One of the activities the boys enjoyed most was playing volleyball and basketball during lunch. The first three months of the program the boys played volleyball, all by themselves. Very slowly but gradually, a few ACS boys and girls started mingling with them, resulting in many others joining them. Near the end of the academic year, while the boys engaged in basketball, many ACS students, both girls and boys, included the Y2Y students in their games.

Student Aides

Throughout the whole year, ACS Athens students offered their help inside the classrooms to those students of the program who needed it most. Almost all developed a good relationship with ACS student aides to the point of the aides – and their friends – visiting my classroom, almost every day, during lunchtime to chat with the students. It is a common sight now, seeing a Y2Y student in the buildings' corridors having a conversation with ACS students.

Study groups at home

Students kept sending me videos of the study groups they had organized, after my suggestion, to better prepare for upcoming tests.

What does all this show?

Under the spirited guidance and strong conviction of Mrs. Tokatlidou that this program would be a success, my colleagues and I managed to create a need-based curriculum aligned with the American High School standards. It was no easy task but, irrespective of the magnitude of the challenge, we like to believe our love for the children and our profession overcame the obstacles we encountered.

The Youth to Youth Educational and Social Integration Program at ACS Athens is the epitome of interconnectedness and relationships, and insofar as History and Sociology, I tried to create synapses between logic and intuition, creative and critical thinking, the individual and the community, school reality and outside reality. In addition, I tried to establish more equal relationships in the school and the classroom based on respect, community, and a shared set of values that would foreshadow and hinder poignant feelings. Students were taught not to use power to control but work in striving to form relationships to cooperate in creating meaningful learning experiences. The key is empathy. This resulted in students learning, first and foremost, to appreciate beauty in simplicity, and to a certain extent, to overcome prejudice and fear to enjoy life and knowledge.

In the recent French movie *Le brio* (2017) by Yvan At-



Student Aides and Youth to Youth students working together

tal, a Law professor who is forced to mentor one of his students, an Arab girl from the projects, for a prestigious contest of rhetoric says, "When we speak well, we forget how to say things simply." Please read Nasir's poem

The Sun
I want to be the sun
That rises in your thoughts,
everyday
And sets in your heart,
always.

What it all comes down to is that as educators and parents, we need to listen to the children impartially. If we want to help them, we should let them do the talking. We should show them our availability. They need to know that there is always someone there ready to listen to them, someone who neither intervenes, nor leads, nor scrutinizes. Only in this way will they come out of the specter of anonymity and develop a sense of identity and belonging to survive and sustain a good society.

NOTE: The Shapiro Foundation through The HOME Project Organization provides scholarships for 18 of unattended refugee minors, consisting of some of the Saturday students along with new ones to gradually include themselves to ACS Athens regular courses.

WORD Jazz

Fourth Annual Literacy Festival Reading and Writing without Boundaries

by Bobby Zervas, Faculty, Language Arts

In a world overshadowed by technology where does literacy rank? To promote and celebrate reading and writing, we have our annual ACS Athens Literacy Festival which was created by Leigh Anderson, the former head librarian. In March of 2019 our fourth event "READING AND WRITING WITHOUT BOUNDARIES" was held. Students from JK to Academy attended and participated in workshops and exhibitions that connected their interests with literature and writing throughout the curriculum. Not only does this astonishing venue allow students and faculty to showcase innovative projects completed in class, but it also presents the opportunity to create entertaining workshops focused on literacy. The festival is organic which continues to grow and reshape itself every year. Our festival opened with a 15-minute successful challenge of Drop Everything and Read (D.E.A.R.) this year. Some of the workshops included Poetry, Creative Writing, The language of Mathematics, Flash Fiction, Storytelling with Four Pictures in Chinese, Comic Book Creation and a Bio-Psychological Escape Room. Each activity opened the door to a world of learning and enjoyment by honoring the importance of reading and writing in a unique way to all students and guardians of the ACS Community.



Fourth Annual Literacy Festival
ACS Athens

**Reading
and Writing
without
Boundaries**

loved words.
He loved stories.
He loved books.
His life was a book of his own writing, one orderly page
after another. He would open it every morning and write
of his joys and sorrows, of all that he knew and everything
that he had seen. Dressed in a paper bag, he would
sit on the balcony and of what he had read.
to-be-read and he would be loved.

March 27, 2019
14:30 to 17:00





Activities and Exhibits at the Fourth Annual Literacy Festival 2018-2019





WORD JAZZ

It all started with a question: The TED-Ed Club of ACS Athens

by Christina Rocha, Faculty, Spanish Language and Angela Zamanis, ESL/EFL Department Coordinator

What is TED-Ed Club?

The idea is really quite simple: Students meet once a week to discuss, explore, and celebrate creative ideas with the objective of showcasing their learning in TED talks they will present to a live audience and on the TED-Ed YouTube Channel.

The Ted-Ed Club concept is a bottom-up design-thinking curriculum that students anywhere from ages 8-18 can access through a teacher advisor. This curriculum is made up of 13 different explorations students immerse themselves in over the course of the academic year, which guides them to identify an idea, a passion, or something that makes their heart beat a bit faster. This takes time, so during meetings (a.k.a. explorations), students get to watch some experienced TED-Ed speakers of all ages and reflect on what they see, what they learn, and how they can use this new learning to inspire their own talks. As students journey through the curriculum, they are faced with identifying and shaping a story only they can tell. In this way, they become the owners of their ideas, and therefore increase their motivation for learning, ask-



ACS Athens' TED-Ed Club

TED-Ed supports students in discovering, exploring and presenting their big ideas in the form of short TED talks.

It all *started* with a question...

In our ACS Athens TED-Ed Club, Academy and Middle School students work together to discuss and celebrate creative ideas.

ACS Athens

ing more questions, and yes ... even researching. They are prompted with a challenging question: How can your idea change the world?

Among so many articles and videos watched during meetings, students enjoyed reading and reflecting on an award-winning children's book, What do you do with an IDEA?, written by Kobi Yamada and illustrated by Mae Besom. This tackles the appreciation of ideas themselves and starts the reader on a journey of an-



TED talks presented by ACS Athens students



Students working together, researching, exploring and preparing their topics for the final talk

swering the question of what ideas become. Students came to realize that everything we are surrounded by, stories, movies, programs, inventions, products, and even cures, all started with an idea once upon a time. The curiosity surrounding ideas eventually led the students to choose their theme for the first ACS TED-Ed event: It all started with a question...

Once their ideas have been born, students then begin the collaboration, research and creative process to building a successful talk so that they will have recorded their own talk to improve upon and then deliver to a live audience by the end of the exploration cycle. These talks, following current GDPR regulations, are then uploaded onto the TED-Ed Club YouTube Channel, which can then be shared with families, friends, and communities around the world.

This year, the TED-Ed Club at ACS Athens was run as a pilot project and was open to any and all Middle School and Academy students that signed up during Activity Kick-off in October. Students that joined then met with their respective school advisors once a week. In the Middle School, Ms. Gaki and Ms. Rocha facilitated the club of six students, two of whom presented talks in the final event. In the Academy, Ms. Zamanis and Ms. Rocha were the advisors for seven students who presented talks and several other student volunteers.

Academy club members elected leadership roles. Abigail Bello became our president, who was an active participant in the planning and rehearsals of the group, as well as co-presenting our culminating event. Other roles volunteers took up to aid in our TED-Ed event were stage, music and tech management, led by Ali Yarici and Jiahao Weng, commentating and providing feedback, ushering and distribution of programs, led by Taia Cissell, Darine Sabbagh, and Danae Barbalia.

Why TED? In education today, there are many trends in identifying the principle C's of 21st century skills. The ACS TED-Ed Club offers a unique opportunity to allow students to explore those C's of education. More specifically:

-Curiosity- by diving into activities that expand their curiosity, students can identify and discuss what matters most to them, making connections to their own lives and training themselves to use inquiry to lead their thinking.

"I really enjoyed it when we mind-mapped our topic, and then others moved around and asked questions they had based on what they saw. That was really unique and helped me figure out where I wanted to go with my own speech."- Abigail, Class of 2020.

"I still had things I didn't know about in my topic, and I definitely enjoyed researching more about the topic and other people's opinions."-Henrique, Class of 2021.

-Collaboration- through guided brainstorming and feedback tasks, students slowly start to craft their

very own TED talk. Both the Middle School and the Academy students had to work together to come up with their own common theme for the event and proceed to plan it together. The MC's this year were 11th-grader Abigail Bello and 7th-grader Eva Karagkou. Learning how to work together is crucial for students involved in any group projects and events, and the girls did a fabulous job.

"I really liked the community that the club created as we all spent the time during the year learning together and discussing speeches we were planning on presenting. Few of my other clubs had the sense of camaraderie and working together that the TED-Ed club did for me this year."-Abigail, Class of 2020.

"I learned how to work better as a team."- Meia, Class of 2022.

-Creativity- in designing and organizing their talks, students realize they can do almost anything to make their talk all the more powerful. This year we even had live dancers, who alongside Meia Cissell, a 9th-grader that delivered a talk on Dance, choreographed and demonstrated pieces of dance moves to accompany Meia and physically demonstrate her ideas. What a great way to bring a talk to life.

"The most important thing that I learned from the club and through the explorations that we did is that language can be powerful, and the fact that every presenter picked a different topic but presented it from a perspective that even if everyone had picked the same topics, we would have presented differently."-Eva, Class of 2024.

-Critical thinking- one of the most important steps for developing critical thinking skills is learning how to be critical of your own work, thoughts, and actions. Without self-reflection, there cannot be growth. TED-Ed Club is built on this principle of students developing their own questions and passions, and reflecting on the process, through collaboration and contemplation. At different points of the exploration process, students "mind-mapped" and jotted down their idea with a few words on butcher paper. Then, they built upon each others' ideas using sticky notes and asking questions feeding off of the central theme. This was a powerful way to get safe, anonymous, and encouraging feedback from the group members as their ideas multiplied exponentially.

-Citizenship- This is where students are able to develop an understanding and awareness their responsibilities as students, and of how their own culture(s) directly impact the cultures and environment they all share as conscientious global citizens.

"I enjoy getting to know more colorful cultures."- Jennifer, Class of 2021.

"I learned I need to respect the deadlines."- Crystal, Class of 2022.



Members of the TED-Ed Club celebrating the event



Various activities planned and executed by different groups of students



"The thing I liked more was that through each one's talk, everyone became a better person even from learning something about themselves, or about the people near them."- Eva, Class of 2024.

To conclude, students were given a safe and non-competitive environment to ask questions, dare, and challenge them with provocative critical thinking questions of 'why' and 'how', and given the tools to explore those questions so as to present their findings and share their passions. They exhibited the results of their explorations in the Media Studio, as well as in front of a live audience. Our 7th-grade MC ties it up nicely saying, "This journey was like a time capsule, because when everyone took the power that courage gave them, and we were standing up in order to present a talk, we traveled into our topic, time, or place we were talking about. We were able to use the power of language"- Eva, class of 2024.

Congratulations to the TED-Ed Club for supporting each other in a successful kick-off to more questions, research, innovative ideas, and even more questions!



Benefits of learning a Classical Language in Modern World: an Institute initiative

by Fotini Chatziantoniou, Faculty, Greek Language

The objectives of the Educational System need to combine the following aspects: to meet the demands of a society at a given moment and to serve alongside the fundamental principles of Education, Culture and Morphosis. Starting from this position, the character of modern education must not only be technocratic, but must be humanitarian based on the preservation of language and social values. The harmonious synthesis of these two orientations is the basic condition for upgrading the educational system.



As educators, we are called, among other things, to inspire our students to love their language through the lessons of Language Arts, Literature, History and through the study of Classical Languages, as is the Ancient Greek Language. Our main emphasis should be that languages build elements that link the past and present.

Familiarization with Ancient Greek culture is an essential element of our national consciousness, identity, which cannot be developed without the active knowledge of the past. The knowledge of Ancient Greek offers students a fuller linguistic awareness and deeper understanding of their own language, Modern Greek, as it allows them to understand the development of the Greek language. Students are able to perceive historically the grammatical and editorial structures of Modern Greek and to watch the internal process through which new words are produced or new meanings for old words, etc. The golden rule of learning is the constant parable with something else.

The knowledge of Ancient Greek offers the possibility for deeper understanding of the cultural links between newer languages (and especially European ones), given that a significant number of its words have passed into modern languages and have been based on ancient materials (ancient Greek words and formats).

This year, with the support of the Institute of Innovation and Creativity (IIC), for the first time, an Ancient Greek Language Course was offered and incorporated to the After School Programs. Students from grades 5 to 8 explored the Greek Language throughout its journey, in the ways and pace that matches their age, so that they can meet with love the Ancient Greek Language from the first moment. During the educational process, the techniques of "living" languages, as are interactive activities, games and research, were used to ensure that the children are not tired of grammar and syntax from the beginning, but simply became accustomed to understanding the ancient Greek speech.

The moment that we opened the book of Ancient Greek, was the beginning of our efforts to make the students love their language as a whole. The goal was to gain consciousness of the role we are called to play as citizens of the world without losing our identity. The first contact was for the students to realize how many Ancient Greek phrases are used today in the Modern Greek Language, and they were called to try to say what these phrases mean. Students - athletes knew the phrases "νοῦς ὑγιής ἐν σώματι ὑγιής" (healthy mind in a healthy body) and "εὖ ἀγωνίζεσθαι" (fair play), and those who loved history knew what the phrases "μολὼν λαβέ" (come and take [them]) or "γόρδιος δεσμός" (Gordian knot) meant. Music lovers knew the "πῦξ λάξ" ("punching and kicking" but it is also the name of a famous Greek band), and some of them had heard, but did not know the meaning of "εὖ ζῆν" (living rightly), and "γνώθι σ' αὐτόν" (know yourself).

Later on, we read the following quote from a speech given by the economist and politician Xenophon Zolotas in the late 1950s, at the International Bank for Reconstruction and Development. This speech is considered to be historic and notable because it contained mainly terms of Greek origin.

"Our critical problems such as the numismatic plethora generate some agony and melancholy. This phenomenon is characteristic of our epoch. In parallel, a panethnic unhypocritical economic synergy and harmonization in a democratic climate is basic."



Student presents her work during the Literacy Festival

I asked them if they believed that someone who does not speak English would be able to understand this. The answer was unanimous - "of course!".

And this is how our journey began. The initial curiosity became a question that sought a response, and finally an interest that was strengthened throughout the year. I consider this first connection with ancient Greek as well as the effort made by the students during the entire school year very important, as it led students to love the lesson, our language and for them to have a positive attitude towards life and the world. And if anyone questioned "Why Ancient Greek?", the great classicist I. Kakrides will give the answer "First of all, because we are Greeks. From the time of Homer to today we kept (being) Greeks, with the same language-naturally sophisticated-, with the same ideals, the same [in many] engravings and with a multitude of elements of inherited culture. The second reason which forces us to know the ancient spiritual Greece is that we are Europeans. The entire European civilization is based on ancient Greek thought and art, so one cannot ignore it if it wants to feel that it belongs to Europe. But the main reason why our young people cannot ignore ancient Greece is another: in Greece for the first time in the world, man was discovered as a value autonomous, the man who wants to be free from all kinds of slavery, material and spiritual".

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Academy

The S.T.E.A.M. course at ACS Athens: Artificial Intelligence and a Space Experiment

by Dr. Antonios Karambelas, Faculty,
Science and Technology

ACS Athens Academy students reached new heights of academic achievement and creativity during the 2018-19 school year, engaging in novel initiatives that integrate Science, Technology, Engineering, Art, and Mathematics. A year of extroversion as well, since Academy students demonstrated their work to the public through various media and at different events, adding value to their efforts and becoming the ambassadors of their own work.

The S.T.E.A.M. course

The Science, Technology, Engineering, Art, and Mathematics course completed a first full cycle, beginning in the Summer Scholar's Academy 2018 session as S.T.E.A.M. Lab, then as part of the ACS 2018-19 curriculum in the form of two semester courses, STEAM 1 and STEAM 2, for 9th and 10th graders, and then again as the Summer Scholar's Academy 2019 STEAM Lab. S.T.E.A.M. is a project-based course that fosters data literacy and computational thinking and encourages analytical thinking, critical thinking, problem-solving, and team working.

Students had the chance to engage in individual and collaborative inquiries. Topics and projects covered were:

- The 4th Industrial Revolution and the Internet of Things
- Brainstorming and Designing Ideal Classrooms and Smart Cities in 3D
- Completing Data-Based Scientific Investigations
- Building Electronic Circuits with Sensors and Actuators and Coding their functionality with Arduino microcontrollers
- Designing a Mission to Colonize Mars
- Encountering AI and Machine Learning

Beyond the regular assignments, students had the option to propose and complete a personal project of their interest, with many of those projects being innovative and excellent in design and implementation. Some examples were: using architectural design software to build a digital energy-efficient house, using Artificial Intelligence and data analytics to predict Stock Market prices, conceptually understanding the blockchain technology and the evolution of bitcoin, building a rover and programming it to detect and extinguish a fire source, testing and improving a gesture tracking machine, and finally, coding the behaviour of various moving items in a video game virtual reality environment.

The Artificial Intelligence course

Artificial Intelligence (AI) and Machine Learning are more than ever timely and are incorporated in a variety of applications and services we already use on a daily basis. AI and Machine Learning are included in the S.T.E.A.M. syllabus, but students also had the chance of taking a Summer Scholar's Academy 2019 Independent Artificial Intelligence course. In this course, Artificial Intelligence was approached not only through conceptualizing Machine Learning algorithms like Neural Networks, but also in terms of its impact on societies and economies and the corresponding ethical considerations. Then, students completed personal technology projects (e.g. programming an interactive tutor) or creating cyber-physical artworks, involving poems, short comics, and animations made by both the students and AI-powered machines.

ACS Athens space experiments

On May 2nd, 2019, the spACS team watched their experiment blasting off into space inside a capsule carried by Blue Origin's New Shepard rocket beyond 100 km altitude. This was a major milestone of the outstanding ACS Academy students' journey from forming the spACS team to brainstorming and deciding on their experiment to be conducted under microgravity conditions (investigation of the viscosity of honey), experimenting in the Chemistry lab, designing and assembling the scientific apparatus and the exterior

box, assembling the necessary electronics, and coding the behaviour of the apparatus. Students needed to address strict safety, size, mass, and other criteria, and do so in time, for the experiment to run autonomously during this unmanned mission – and it did!

spACS was a manifestation of creative thinking, problem-solving, teamwork, and perseverance to the numerous challenges on the way to launching as showcased by the ACS Athens students. It was also an opportunity for the students to experience a real-world S.T.E.A.M. endeavor, especially under Blue Origin's space initiatives that revolutionize rocket reusability and space flight and pave the way to space colonization. Additionally, it exposed students to specifics and mechanics of research and development jobs, as well as necessities like project management, fundraising, and risk management. spACS impact on students also included a few IB Extended Essays and Internal Assessments inspired by the program, while at the same time there was significant impact to participating faculty in terms of knowledge gained and skills acquired.

The flight took about 10 minutes to complete, with approximately five of them under microgravity conditions. The capsule, containing spACS and 37 more scientific experiments from NASA, Institutions, and schools, reached a maximum speed of more than 3,500 kilometers per hour. spACS and two other Greek experiments were the first ever to be carried out by non-US schools inside Blue Origin's vehicle! The rocket and capsule landed separately using their boosters and parachutes, respectively.

ACS student-members of the team have already received the experiment and will be working on analyzing the data obtained. This initiates the challenging post-flight phase of scientific research that could potentially lead to a scientific publication.

Studying the viscosity of honey will most definitely



3, 2, 1, Go! Blue Origin's New Shepard rocket launches with the spACS apparatus inside the capsule on the top
Photo courtesy of Blue Origin



The spACS box. Jason Katsaros designed the box, 3D printed some parts in the Incubator's 3D printer, assembled the box, and carried out the required endurance tests



Unboxing the scientific apparatus returning from space!

not be the last experiment ACS Athens students design and build for Blue Origin's rockets! Another team of Academy students (spACS 2) has already showcased impressive results, coming first in the 1st aerospace competition hosted by the Hellenic Physical Society (November 2018) hence allocating one more rocket slot! In fact, the spACS 2 team prepares two independent experiments that will be conducted in parallel inside the same box, investigating the behavior of foams and emulsions under microgravity conditions, with Greek products being again the focus of investigation: ouzo liquor and petimezi grape syrup.

Link with higher education

Having courses like S.T.E.A.M. and Artificial Intelligence, as well as programs like spACS, referring directly to the near future social and professional landscape and fostering the creation of new knowledge, it comes naturally for ACS Athens students to interact and collaborate with experts from Higher Education:

Dr. Efthimiopoulos, a researcher at the Research Center for Astronomy and Applied Mathematics, Academy of Athens, is collaborating with Dr. Tsigaridi, ACS faculty, and spACS students to mathematically model the spACS experiment and analyze the results.

Dr. Drazinos, a data scientist at Diagnostic Echotomography SA, delivered a presentation to the Artificial Intelligence Summer Scholar's Academy students on how Artificial Intelligence is used in Healthcare for diseases' early prediction and what the prospects are of the data science field.

Mr. Katsaros, professor at the School of Architecture, National Technical University of Athens, delivered a presentation to S.T.E.A.M. students regarding Architectural Engineering and has already suggested effective ways of further incorporating Architecture in the S.T.E.A.M. syllabus.

Mr. He, a student of UC San Diego, ACS Athens alumnus and Valedictorian 2017, delivered a presentation to the S.T.E.A.M. students regarding Engineering, Computer-Aided Design, and Design Thinking per his academic experience thus far, and his transition from Secondary to Higher Education.

Outreach of S.T.E.A.M. activities

Students successfully communicated their S.T.E.A.M. projects to the public on many occasions during the 2018-19 school year, sharing their creative ideas, hard work, and final products. More specifically:

Athens Re-Science Festival 2019

During this major scientific outreach festival that took place on April 2019, Academy students demonstrated the following projects: a) Living Environments, presenting their 3D designed Smart Classroom, Smart House, and Smart City, b) Soundscapes, on how sounds would sound like in other planets, c) spACS 1 and spACS 2 space experiments, and d) the Gallery of Things robotic exhibition.

Interviews

The spACS 1 team got interviewed four times, twice before the May 2nd 2019 launch by Huffington Post Greece at the Incubator and the Athens Re-Science Festival venue, respectively, and twice after the launch by Antenna TV and the National Herald Greece, respectively. The launch event and the respective ACS Athens participation were announced on numerous websites.

Competitions

The spACS 2 team competed at the "1st Aerospace Contest" finals, Hellenic Physical Society, Stanley Hotel, 2018, for a ticket to yet another flight with Blue Origin, and got first! The team had to suggest a unique, feasible space experiment and accompany it with relevant artwork.

Conferences

The spACS 2 team presented their experiment at the Hellenic Physical Society's "1 Fisiki Magevei" conference, University of West Attica, on December 2018.

10th-grade personal projects

A few of the S.T.E.A.M. students presented their individual projects carried out during the course at the 10th-grade personal project exhibition day, May 2019.

Faculty outreach

ACS Athens Faculty completed a paper titled "A School Experiment Inside Blue Origin's New Shepard Space Vehicle Under Microgravity Conditions" regarding the spACS 1 program from a pedagogical point of view (Dr. Karampelas, Dr. Tsigaridi, Dr. Prodromidi, Dr. Kerkines, Ms. Poulou, Mr. Arsenikos 2019) that was presented at the "Creating Conditions for Deeper Learning in Science" conference, Ellinogermaniki Agogi, June 2019. ACS Faculty also submitted an article with title "Introducing Artificial Intelligence and Machine Learning in Secondary Education" (Dr. Karampelas 2019) to be included in the upcoming edition of the Hellenic Mathematical Society's "Astrolavos" magazine.

Next steps

Even though the advantages are evident, it is hard to predict to what degree each high school student will grow due to project-based courses like S.T.E.A.M. or Artificial Intelligence, or what the outcomes would be for those participating in challenging programs like spACS. Each student is a unique individual with different needs, talents, and character. What seems to be certain though is that students could surprise us with their abilities, passion, and accomplishments when exposed to a learning environment that fosters creativity and critical thinking, interact with higher education, and have opportunities to communicate their work within and beyond the school. ■



9th graders at the Athens Science Festival

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Academy

IB Visual Arts 2019 Exhibition

by Sophia Soseilos, IB Visual Arts Faculty

The 2019 IB Visual Arts exhibition took place between the 2nd and 12th of April at the ACS Athens Theatre Lobby. The participants were Vasiliki Almyranti, Yiling Chen, Kayla Heliou Le Heux, Monan Monga, Artemis Mitropoulou, Elena Papaspyrou, and George Trochopoulos. The opening reception took place on the 2nd of April between 16:00-18:00. Many came to honor their work, family, and friends of the participants as well as faculty members of the school.

IB Visual Arts consists of three components; the Process Portfolio, the Comparative Study, and the Exhibition. The Exhibition is an internally examined assessment task worth 40% of the total grade, but it is also the 'mirror' of our students' creative efforts based on their inner concerns and preoccupations. Their independent exhibitions usually reflect the professional direction they want to follow whether this is Fine Arts, Architecture, Illustration, Fashion, or Film.

According to the IB rubric, the students should show technical resolution, successful communication of ideas, and synthesis of form and function. Part of the students' task is to accompany their works with exhibition texts (which state the title, medium, size and a brief outline of the original intentions of each selected artwork) as well as a curatorial rationale. The

explanations they place need to justify the selection, arrangement, and exhibition of their artworks within the designated space and reflect on how the exhibition conveys an understanding of the relationship between the artworks and the viewer. In this year's exhibition, our IB Visual Arts students were eight, and they were all technically excellent dealing with deep thoughtful concerns.

Vasiliki Almyranti's artworks are preoccupied with the different phases of stress and anxiety. The following text is part of her curatorial rationale:

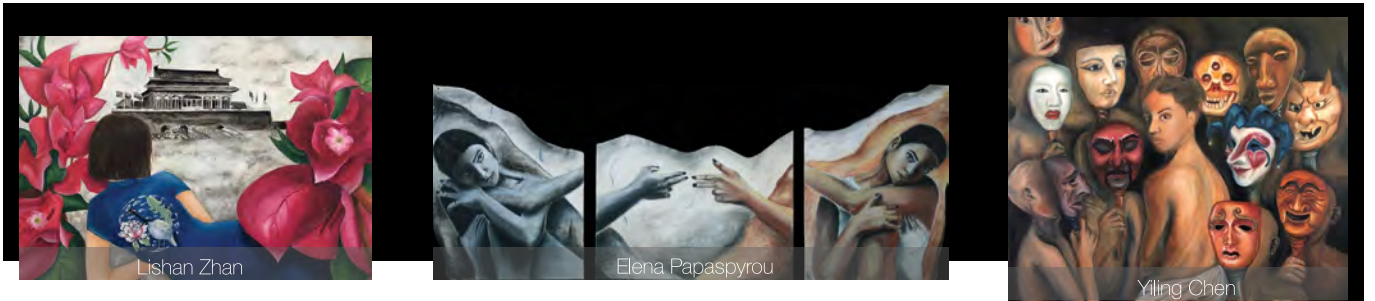
The purpose of my exhibition is to reveal to the audience the different phases of stress and anxiety as I have experienced them. It aims to show the effects of stress, both psychologically but also physically. Modern societies have built up specific characteristics of what they expect from people to be and how they should behave, act, and deal with obligations. Especially for students; parents, teachers, and colleges have great expectations, which most of the times overcome the capabilities of the students. As a teenage girl living in such a society, facing great expectations from parents and school, there was a period of time where I felt like drowning. Creating artworks that expressed how I was feeling helped me deal with the situation. Hence, this exhibition is a collection of a body of work that visualizes stress and anxiety the way I have seen them.

Yiling Chen is dealing with the symbolic use of masks. The following text is part of her curatorial rationale:

Masks are often used in art as a medium to hide true emotions. Through my art, I intend to show the multiple dimensions of the masks and explore the effects they have on humans, including individuals and groups. As an art student who moved from a small village in China to the Greek capital, Athens, I drew inspiration from my personal experiences. The unfamiliar environment and language made me aware of the internal conflicts in social communication and how one can cover up their true feelings. I was shocked by the dishonesty existing in interpersonal relationships within society. Therefore, I created a series of "masked" people, showing the various ways people hide behind them. My exhibition suggests the suppressed manifestation of human beings in the social environment.

Kayla Le Heux's theme is as she says the "natural process of being." The following text is part of Kayla's curatorial rationale:

My overall theme could best be described as the "natural process of being." This is due to the fact that I feel part of nature and nature impacts my every development. Humans form part of nature and are nourished by it, but in my case, I actively engage with a range of sports activities that take place in the sea or the mountains. These have formed my development, and when it came to creating my own works in the IB course, my first responses had to do with natural phenomena and my immediate surroundings. One of my greatest beliefs is that nature should be treated with



Lishan Zhan

Elena Papaspyrou

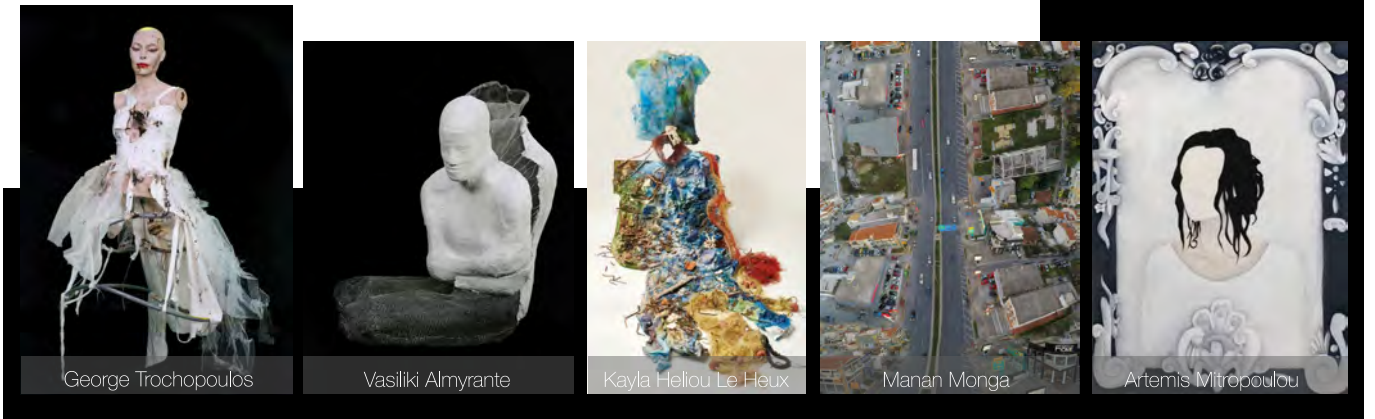
Yiling Chen

Opening: Tuesday April 2, 16:00-18:00
 ACS Athens Theater Lobby and Atrium

Duration: 2-12 April, 2019

129 Aghias Paraskevis & Kazantzaki St, 15234 Halandri

IB YR 2
 VISUAL ARTS
 EXHIBITION



George Trochopoulos

Vasiliki Almyrante

Kayla Heliou Le Heux

Manan Monga

Artemis Mitropoulou



Opening night: IB Visual Arts Exhibition, Spring 2019

respect and awe at the same time, as its power can be incredibly beneficial but also destructive.

Manan Monga's main focus is the notion of Time. This is part of his curatorial rationale:

Often people fall on time loops. Without noticing it, they keep repeating actions and re-experiencing the same things over and over again. Hours are wasted and spent in travelling back and forth to people's occupations; jobs, school, activities. Hours are spent on mobile phones and social media leading all ages in great addictions instead of doing more productive things while others in the process of trying to save a few seconds drive recklessly and jeopardize lives. Through my various art pieces, I aimed to touch these issues. I got the idea of using time as a common theme between my works by observing current day society. My body of work consists of photographs and films digitally manipulated to convey my meanings. My works demonstrate my thoughts and worries of the notion of time that passes; time is valuable, and it's up to all of us to make it as useful and meaningful as possible.

Artemis Mitropoulou's artworks deal with the notion of loneliness. The following text is part of her curatorial rationale:

I am an aspiring animator who's been a single child in my family and a loner in general. Although I have my friends, I have my lonely creative hours, and I can identify with lonely people and "Dealing with Loss" which is the theme of my exhibition. Through it I want to analyze the stages one might go through in order to cope with the loss of a close relative, friend or lover, facing death itself or more metaphorically with the loss of a friendship, the loss of a parent through divorce, or even the loss of one's identity. Some people take loss harder than others, which also depends on the situation and the significance of the person who "walked away." With this exhibition and the artworks it includes, I will try my best to show how one might feel and go through in the process of loss.

Elena Papaspyrou's preoccupation is identity crisis. The following text is part of her curatorial rationale:

Identity crisis is a period of uncertainty. In this confusion, a person becomes insecure, failing to achieve an expected role in society. Throughout all my pieces and within various artistic approaches, I intended to transmit my idea of identity and the disputes it raises. There is a constant inner controversy between the binary duality of good and evil in one's personality. This is an issue highly encountered, especially in youth, since adolescence is a time that youngsters develop their sense of autonomy. It is common that teens get misunderstood and misinterpreted, resulting in feelings of inadequacy. Consequently, there is a tendency of acting in inappropriate disingenuous ways while attempting to solve their inner conflicts.

George Trochopoulos' theme is based on the notions of "chaos and beauty." The following text is part of



Artist: Elena Papaspyrou

George's curatorial rationale:

The goal of this exhibition is to expose the correlation between chaos and beauty and how one can be achieved through the other. As a teenager going through puberty and as a creative individual, all my life, I've experienced a lot of chaos and confusion. However in the process I understood how vital they are, in making me who I am today. Therefore I have produced a body of work that reflects beauty through the use of multitude processes and unconventional materials that visually represent chaos, but are functional or aesthetically pleasing showcasing the relationship between beauty and chaos. The installations are hanged from one string, placed around the roof of the exhibition. This creates a sense of unity since all pieces are hanged by that one continuous string. It also gives the feeling of dependency, since every piece aids towards creating the necessary tension for keeping the pieces up, resembling the importance that all chaos has in shaping a person's identity.



Artist: George Trochopoulos

Lishan Zhan's artworks deal with the multiple emotional stages of cultural shock. The following text is part of her curatorial rationale:

The goal of this exhibition is to reveal to the viewer the multiple emotional stages of cultural shock when assimilating into a new environment. As a third culture kid born in Greece, being raised by Asian parents and attending an American school, I can deeply relate to the emotional turmoil and tranquility present in the stages of cultural shock. Having experienced the several stages of assimilating into a new culture myself, I am aware of how reluctant one can be with the



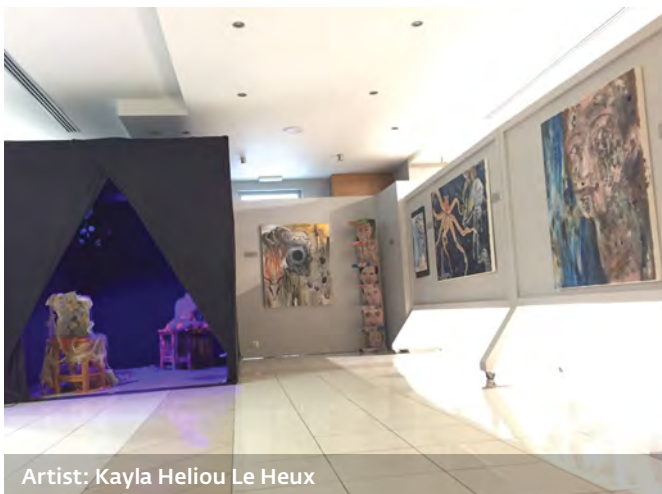
Artist: Vasiliki Almyranti



Artist: Yiling Chen



Artist: Monan Monga



Artist: Kayla Heliou Le Heux



Artist: Artemis Mitropoulou



Artist: Lishan Zhan


past and the several psychological impacts associated with such addiction. Hence, I have produced a body of work that reflects my experiences and perception of cultural shock - illustrating how through the process; one can mature and formulate a unique identity but also get lost between the realms of fantasy and reality.




Academy

Student Life on ACS Athens Campus & Beyond Getting involved enriches who we are and who we become

by Theodora Panteli, Student Life Officer



At ACS Athens, we value a holistic, meaningful, and harmonious education. Throughout the institution's 70-year-old history, our campus has been a vibrant community in which student life has, without a doubt reflected the positive energy found on campus.



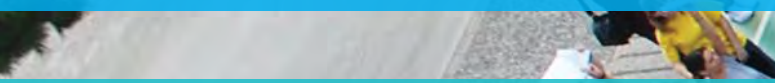
The student life experience at ACS Athens is designed to amplify student voice within our community, as well as in the greater community. On our campus, one will find a vibrant student community where students can engage in extra-curricular activities and meet like-minded fellow peers through clubs, societies, and organizations.

● **HOLISTICALLY BALANCED**

Our Student Life is committed to helping students maintain a balanced life: mentally, physically, spiritually, and socially.

● **INDIVIDUALLY FOCUSED**

Understanding the journey of adolescence is different for everyone, ACS Athens is committed to coming alongside students and meeting them where they are to help them navigate these years.



THE ACS ATHENS' MISSION STATEMENT ENCOURAGES STUDENTS TO BE:

● **CRITICAL THINKERS:**

by asking questions about the world around them, students start making sense of their personal experiences. Through critical thinking, young individuals develop the capacity of identifying and challenging the problems that exist in today's society.

● **CHANGE-MAKERS:**

Young people have the power to ACT and also to mobilize and influence others. Promoting Youth activism through various activities, in ACS Athens, students have the opportunity to be the change they want to see in the world!



LEARN • LEAD • LIVE

A CAMPUS FULL OF OPPORTUNITIES

- ⦿ At ACS Athens, we have a profound commitment to the diversity of our community, and we are focused on creating an environment where students will be able to thrive on campus and beyond.
- ⦿ Through the wide array of programs and services that we offer, we make sure that we provide students with opportunities and experiences that build community help them grow personally, and create a place that students will refer to as “home” frequently throughout their life.
- ⦿ At ACS Athens, students have the opportunity to choose from a plethora of activities in order to pursue their personal interests outside the classroom, becoming well-rounded individuals and embracing ACS Athens’ ‘Holistic, Meaningful, and Harmonious’ approach of learning.

⦿ **INNOVATORS:**

The Ability to introduce “fresh” perspectives enables students to acquire direct knowledge and understand the problems they face by proposing new ideas and alternative solutions.

ACS Athens promotes youth-led initiatives and clubs, in particular, as they contribute to the development of civic leadership skills among young people.

⦿ **COMMUNICATORS:**

by being active participants in campus life, students develop the skill of communication which is essential in conveying information and ideas to their peers and communities at the local level, as well as across countries and regions.

⦿ **LEADERS:**

Through the various activities offered, students are empowered with the knowledge of their rights and equipped with leadership skills.

JOIN THE ACS ATHENS MYRIAD OF ACTIVITIES AND RAISE YOUR VOICE!

Academy

The amazing Class of 2019! What lies behind a college acceptance letter

by Dafni Anesti, Communications Officer
and Anna Makris, K-12 Counseling Coordinator

What is the process of applying to college like? How do today's 17-year-olds make their decisions about the future and what are their feelings towards the new path ahead? ACS Athens counselors and senior students share their hard-earned experience and some words of wisdom.

Post High School life begins after graduation. Before that day, two intense, creative, and copious years have proceeded during which students, counselors, families, and the whole school collaborate to make sure each student chooses the most suitable path. The Advisory classes are designed to support this process through career and college exploration, as well as self-reflection. "Different students have different needs; you start with this principle. It is a creative as well as a sentimental process. You start bonding with each student; you get to know them, their future aspirations, and then you can advise them properly. Many people have to be on board: students, parents, advisors," notes Chara Kouppa, ACS Athens Advisory Specialist for grades 11 and 12.

"Counseling as a process is stressful, in many ways, fascinating but also overwhelming. It is about build-

ing relationships, helping students find their way despite the stress. I enjoyed the process myself and urged students to do the same: This is your future, enjoy this moment!" Helen Seretis, ACS Athens Academy Counselor, points out.

Overall, students take advantage of the opportunities available through Advisory classes and the school's curriculum to make their decisions, apply to the best-fit college, and decide on their next steps. "When students are unsure, we advise them not to have their career in mind, but to focus on what they would like to do for the next few years," Anna Makris explains, K-12 Counseling Coordinator. "Students learn the importance of not making arbitrary decisions. They spend a significant amount of time researching each university. The major of their choice, prestige, location, student life, as well as the financial aspect at a later point, are the most important factors that come into play. There is a slight shift towards European Universities, but also the U.S. universities are always popular," Ms. Makris adds.

College visits are an essential part of the Advisory classes. "They have been an amazing experience for the students because they receive the information directly from the schools and in an interactive way. For us, counselors, it is valuable as well. Having all the college representatives visiting our school strengthens the relationships between our school and their programs. Furthermore, we have the opportunity to learn first-hand how universities consider applicants, which means we can help our students with their applications in a more meaningful way," Theodora Panteli, Advisory Specialist for grades 9-10, elaborates. Students, now more than ever, take this opportunity to explore their options, are eager, introduce themselves to the representatives and seek the information they need. "Every single college representative has commented on the fact that ACS Athens students ask meaningful and mature questions. They are a fantastic audience and enjoy college visits. It is very commendable." Ms. Eugenia Hatziagelides, Academy Guidance Specialist highlights.

Choice of major is as diverse as ever. From Ms. Panteli's experience "Students are moving towards S.T.E.M. due to the growth of new technologies; however, a significant amount of students remain faithful to the 'romantic' area of the ARTS (literature, Languages, Music, and theater/acting)!" Also, a particular interest towards entrepreneurship and the business world was evident this year: "Many students are interested in finance and entrepreneurship: how to build an idea, fund it, and develop it." Ms. Kouppa adds. "Some students might also opt to take a gap year and look for an internship or work, which is also decided under guidance. What is impressive is that the High School students have so many things going on and yet they have the time to keep up. It is impressive how they handle competition and their exams. They ask for advice as they try to make an informed decision, which is an amazing attribute for a 16 or 17-year-old. These students are worthy!" she notes.

The students draw a vivid picture of these intense and creative school years and college applications.

"The process was somewhat tiring. I started early to make sure I will meet the deadline, completed it in advance and got it out of the way to focus on schoolwork, especially before mock exams. The thing that made it most tiring was the essay supplements since we had to go back, ask for feedback, and rewrite. In the end, I was relieved that I finished it," A., senior student, mentions, now happy with his college acceptances. "In the future, I want to do something related to Business, not sure exactly, I really like International Business," he adds.

G. reflects on his experience regarding college applications: "The first thing that comes to mind is "hectic." Maybe it was my fault more than anything. I thought it was quite insightful, to find out a few things about yourself, work out how you are going to present who you are. To be a good addition to a university student body is tough and sort of an introspective thing to do, so that was it. It took a lot of thinking and diving deep into who I am supposed to be, and that's a hard thing to answer when you're 17."

"Overall, it was stressful, but we managed to get it through, run smoothly and in the end got into the colleges we wanted to," H. points out. M. points out the difficulty in deciding, "The college application pro-

cess was difficult. There are so many universities, and being in such an international school, I felt that I had so many options that I needed to truly search and narrow my options down, which took a lot of time." J. was determined about what he wanted to do in the future: "I aim to work in the aerospace industry or the transportation industry. I will study mechanical engineering in the U.S. and have already been offered a job opportunity in the U.K. in the car industry."

What makes this class special? Each counselor answers that question in their own way. "Reading through their Senior Quotes, I realized that this class dares to dream BIG and dares to be a little different." Ms. Panteli noted. Ms. Kouppa commented on this class' excelling leadership skills, as seniors started many initiatives and actively participated in different clubs. "This class is a vivid mix of personalities, and they seem to know what they want." Ms. Makris comments, while Ms. Seretis points out the strong and caring relationships between peers. The students' own words reveal what makes this class special, in a nutshell: "I am very involved in community projects, and I hope, that through my university, I get a voice and make a difference. I hope to be able to make myself part of the solution." L. exclaims. ACS Athens hopes the same for all its graduates.



Academy

Academy Commencement Ceremony 2019

by Dr. Peggy Pelonis, Vice President

The celebratory atmosphere leading up to this year's commencement ceremony permeated school grounds even prior to the event. Students ended their rehearsal with a 'walk through' the elementary, middle and Academy grounds, reminding many of the students of their years at ACS Athens and allowing them to say their 'goodbyes.' The event was followed by a very memorable Senior Brunch organized by members of the PTA with an 'airport' theme depicting the next phase in students' lives as they cross the threshold from secondary to higher education. The culminating event of the year, the Commencement ceremony, took place on June 14th. Dr. Kevin Ruth, Executive Director of the Educational Collaborative for International Schools (ECIS), was the keynote speaker addressing the senior class. Dr. Ruth's valuable advice to the senior class was summarized in his statements of "Decide what you stand for and stand for it all the time" as well as "When faced with momentous decisions, consider the thousands of smaller decisions that will define you." To further make his point, Dr. Ruth quotes the motto of many institutions "to Be rather than to Seem."

The senior class also heard from Mr. James K. Stiegler, Charge d'Affaires, United States Embassy, Mr. Suheil Sabah, Chairman of the Board of Trustees, Dr. Stefanos Gialamas, ACS Athens President, Dr. Peggy Pelonis, ACS Athens Vice President who also served

as Master of Ceremony, Mr. Anthony Vandarakis, Academy Principal and Ms. Rea Maratou, Elementary School Faculty who recognized students at ACS Athens since elementary school.

The event continued with recognitions including the recognition of faculty member Ms. Natalia Dadidou, recognized by students as the Faculty of the Year. Student awards included the following: Academic awards: IB: Maira Pyrgioti and Stavros Dimistriadis, Visual Arts: Yiling Chen, Theater Arts: Daeira Cavadias, Economics: Madina Abbasova, History: Ioanna Papatrifon, Psychology: Ester Pykko, Business Management: Yiling Chen, Humanities: Megan Dugan, English: Asterios Dougalis, Chinese: Chicheng Weng, Spanish: Stavros Dimitridis, Greek: Maria Lydia Vourlidi, German: Navid Walizadeh, Math: Hyun Joung Yoon, Biology: Maira Pyrgioti, Chemistry: Maira Pyrgioti, Physics: Hadeel Ghoneim, Environmental Systems and Society: Yiling Chen, Computer Science: Stavros Dimitriadis. Special awards included: The Arete Award for exceptional contribution to the community: Asterios Dougalis, The Counseling Award for Excellence and Promise: Alexandros Bofilion and Marcia Staikidi. The Tie Care award by Tie Care International for exceptional service commitment: Lydia Pinirou, The CAS award for community service: Odysseas Digbassanis and Maria Lydia Vourlidi and the Principals award for best all-around student: Odysseas Digbassanis. The class was finally addressed by the Salutatorian of the class: Ester Pykko and the class Valedictorian: Maira Pyrgioti.

No doubt the class of 2019 is off on a journey to define their paths and certainly the skills and knowledge attained at ACS Athens will serve them well. As for those of us who taught and guided them, the grounds will be a little poorer without their presence. God Speed and be well class of 2019!





Academy Commencement Ceremony 2019



Academy Commencement Speaker Dr. Kevin Ruth with Dr. Stefanos Gialamas

institution. We are excited to embark once again in this valuable reflective process and we hope to gain even more from this second round. I remember Steve Medeiros, our Dean of Academic Affairs, in our last accreditation cycle, saying that the first round seemed as if we were all engaged in a collaborative PhD thesis, this time I believe we are on our way to our post-doctoral thesis. May the research continue, to attain an even more in-depth analysis of educational findings that will benefit our school and maybe even serve as a basis for other international schools.

Mary-Ann Augoustatos

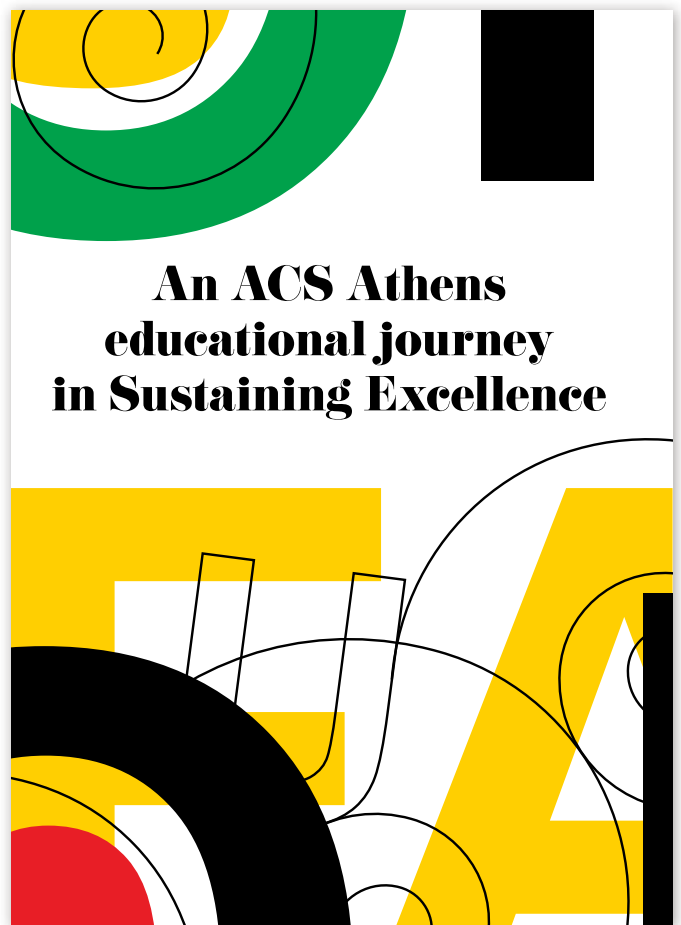
Accreditation

Strategic Planning Meeting, December 2018

by Mary-Ann Augoustatos,
Director, Learning Commons
Stavi Dimas, Elementary School Faculty
Dr. Antonis Karambelas, Academy Faculty

On April 22 and 23 of 2016, our school opened its doors to guests from all over the world, to come and share our pride and joy as results of a seven-year sustaining excellence accreditation cycle with the Middle States Association of Colleges and Schools were displayed in multiple and diverse forms in our theater. The protocol, at its core, relies on educational research, collaboration, and specific and sustainable educational methodologies to achieve results. The Colloquium was the culminating activity to celebrate action research findings after having developed new educational methodologies in teaching and learning throughout our school and throughout all disciplines. These days of celebrations, which remain vividly in my mind, will happily soon be upon us as again as we have decided as a school to continue with the sustaining excellence protocol for our next seven-year accreditation cycle. This time the process will be familiar but the expected results will be even higher.

Having been in our school for over 30 years and having gone through the accreditation cycles in various capacities, more specifically as a faculty member, department chair, principal director, and more importantly, as a co-coordinator of our last cycle and this next one, I believe strongly in the accreditation process and have witnessed its positive results in our



ACS Athens promotes a culture of learning, innovation, diversity, reflection and opportunity. As educators we become an embodiment of our school's values and virtues, as well as a product of its creative energy and unique strength. This year I had the pleasure of becoming a member of the ACS Athens Internal Accreditation team after seven years of teaching in the Elementary School. This new position enabled me to begin to view the school from a completely fresh perspective. It was and will remain a chance to examine the evolution of our school's progress from its beginning to where we are today.

During the last Accreditation cycle I was still very new to the school and I remember my amazement at how much research, collaboration, dedication and good old hard work was needed to produce the 2016 Colloquium. The action research alone required data collection, observations and thorough reflection on our practices with our colleagues and students. The two day culminating event was a whirlwind of workshops, Morphosis Talks, posters, and interactive presentations all orchestrated in a seamless manner mirroring the processes which had come to pass.

The new Accreditation cycle is now upon us and we find ourselves again inspired to show our school's excellence, as determined by the previous Middle States Association visit. Already projects, action research and professional development initiatives are being formed in the spirit of the ACS Athens mission and vision. This cycle's first Strategic Planning meeting in early December was a moving testament to our community's resolve to strive for the 'best fit' in all that we do with our students and their families. Our commitment and enthusiasm to continued learning through our own practice has become contagious within our own classrooms as we model excellence through our actions. I am delighted to be a part of this process once again and look forward to working with my teammates and colleagues towards achieving the next level of excellence.

Stavi Dimas

The commitment of ACS Athens to sustain excellence is evident through numerous initiatives referring to all its constituencies: students, parents, faculty, staff, administration, board of trustees, being in alignment with the school's mission and vision. From my educator's point of view this materializes, among others, as constantly and consistently keeping the curriculum and the instruction up to date with global trends and best practices, implementing professional development schemes and giving students the opportunity to flourish through challenging co-curricular projects. Coming from the fairly unelastic Greek educational system, where peer evaluation is not established, I was more than happy to see ACS Athens purposefully seeking external evaluation from an Institution of the caliber of Middle States Association (MSA), in order to grow further and provide its students with multiple pathways of holistic education. Coming from academia as well, it was a pleasant surprise to encounter mechanisms to facilitate educators' Action Research and to foster research skills to students.

To me, ACS Athens preparing to meet the challenging re-accreditation criteria is among the most profound evidence of determination and commitment to excellence toward transforming the school through student learning. As a member of the Accreditation Team, I had the chance not only to collaborate efficiently with the team's members in initiating the coordination of the re-accreditation process, but also to realize during the Strategic Planning Meeting that took place in December 2018 that all school's constituencies are willing to do their best toward meeting the ACS Athens sustaining excellence goal.

Being a member of an MSA evaluation team, May 2019, was invaluable in better understanding the accreditation process and the challenges it entails, as well as in realizing how worthy the procedure is since it adds value and brings growth to the school that is undergoing it, being directly reflected on the students' growth.

Dr. Antonis Karambelas



Professional Development

Research-Based Balanced Literacy Approach A Professional Development & Alignment Project at the Elementary School

by Sophia Moros, Elementary School Principal
and Sophia Tsinakis, Elementary School Faculty

Elementary school educators are recognized for their literacy knowledge and capacity to inspire a love for reading and writing in young children. During early childhood education (ages 3-5), children are exposed to stories, music, play, and fine motor skill activities that support the development of a solid literacy (i.e., reading, writing, speaking, and listening) foundation. To the teaching of reading and writing in elementary school (ages 6-11), the underpinning of the approach is founded on beliefs about the conditions needed for every learner, in every grade. Throughout the 2018-2019 academic year, our elementary school faculty worked diligently to heighten the Reading and Writing Workshop curricula to align Grades K-8 English Language Arts. The workshop instruction and Units of Study are researched based and developed at the Teachers College at Columbia University, "they are built on beliefs about the essentials of literacy instruction for all young readers and writers" (Calkins, Vanderburg, and Kloss, 2018). A few principal goals

of the Reading and Writing Project are to build confidence, agency, and grit in learners. As educators, we aim for our students to communicate their creative thoughts and individual ideas with independence and enthusiasm. Ms. Sophia Tsinakis and Ms. Sophia Moros partnered their backgrounds in literacy to create an instructional leadership unit that combined balanced literacy approaches for elementary school teachers specifically.

Throughout the 2018-2019 academic year, ACS Athens Elementary School educators and administrators regularly gathered for professional learning and discussions to gain new insights into the curiosity, intellectualism, and research that inform reading and writing workshops. Moreover, more extensive alignment between grade bands was emphasized to move our school toward our reading and writing goals. As a faculty, several topics were explored and discussed, including:

- ⦿ the curriculum is best learned in action, alongside kids, allowing our instruction to be a work in progress
- ⦿ learning to deliver brief, lively minilessons
- ⦿ the predictable architecture of a minilesson and lesson templates
- ⦿ sharing our experiences, questions, and advice with colleagues
- ⦿ reading and writing are skills that are only learned in use and time to practice them
- ⦿ learners need their work to be meaningful
- ⦿ it's essential to give kids opportunities to work in collaboration with other learners
- ⦿ tackling the assessment process with increased efficiency, confidence, and enthusiasm
- ⦿ using assessments to inform your instructional decisions
- ⦿ learners need direct, explicit instruction and opportunities to receive feedback from a teacher

Readers and Writing Workshop is a method of instruction that often requires a paradigm shift from the teacher making all the choices and telling students what to learn within a text, to students making choices, and through practice and application of skills-based lessons, learning as they read and write. (Jun 20, 2017). Namely, the gradual release of responsibility model is often used by educators in teaching reading and writing. The student-centered model has three stages:

- ⦿ teacher MODELS (I do)
- ⦿ teacher SUPPORTS learners as they practice it (we do)



Elementary School educators and administrators regularly gather for professional learning and discussions



Readers and Writing Workshop: a method of instruction that often requires a paradigm shift

◎ learners WORK INDEPENDENTLY (you do)

The faculty at ACS Athens worked comprehensively on creating interdisciplinary units that incorporated the components of balanced literacy - reading workshop (the heart of balanced literacy), read aloud with accountable talk, shared reading, writing workshop, word study, and interactive writing. Balanced literacy is defined as a *“curricular methodology that integrates various modalities of literacy instruction, which are aimed at guiding students towards proficient and lifelong reading. The balanced literacy approach is characterized by explicit skill instruction and by the use of authentic texts.”* (Lynch, Erin). These five pillars of balanced literacy secure phonemic awareness, phonics, fluency, vocabulary, and comprehension skills. Lessons are differentiated and scaffolded for our learners; thus, the reading and writing processes are attuned to individual student needs. A recent literacy study *“found that reading engagement directly corresponds with academic success across all disciplines.”* (Bronzo, Shiel, and Topping 2011, 311). In other words, by having designed branches of lessons in the school curriculum students are more likely to blend learning and unit themes or ideas for a more comprehensive understanding of their academic work and expectations overall.

We are proud to say that ACS Elementary School educators have committed to literacy professional development with the focus of strengthening teachers' methods and spirits. By developing our instructional practices, pedagogical content knowledge, and overall teacher effectiveness, we boost our students' best academic performances. The ACS Elementary School will continue to engage in collaborative, collegial, and practical progress to advance our greatest contribution - our students.

Lynch, Erin. “Components of Balanced Literacy and Strategies for the Classroom.” *Components of Balanced Literacy and Strategies for the Classroom*, 13 July 2018, www.sadlier.com/school/ela-blog/overview-of-balanced-literacy-components-strategies.

Calkins, L., Vanderburg, T., Kloss, D. (2018) *Getting Started with Units of Study*. Portsmouth: NH, Heinemann.

www.facebook.com/thisreadingmama, Becky. “What Is Balanced Literacy?” This Reading Mama, 17 Sept. 2017, thisreadingmama.com/what-is-balanced-literacy/.



Activities based on the Balanced Literacy Approach, attuned to individual student needs



1-1 support and the Role of The Shadow Teacher at ACS Athens.

Extremely proud of all our colleagues; and especially of those who support all those students that happen to learn differently!

Dr. Pelonis and Ms. Perakis will be leading a Panel Discussion on topics of learning support and exchange of ideas. ACS Athens will once again show the way by leading by example!



Professional Development

The ECIS Student Support Conference

by Chris Perakis, Learning Support and Testing Center Consultant, The Institute

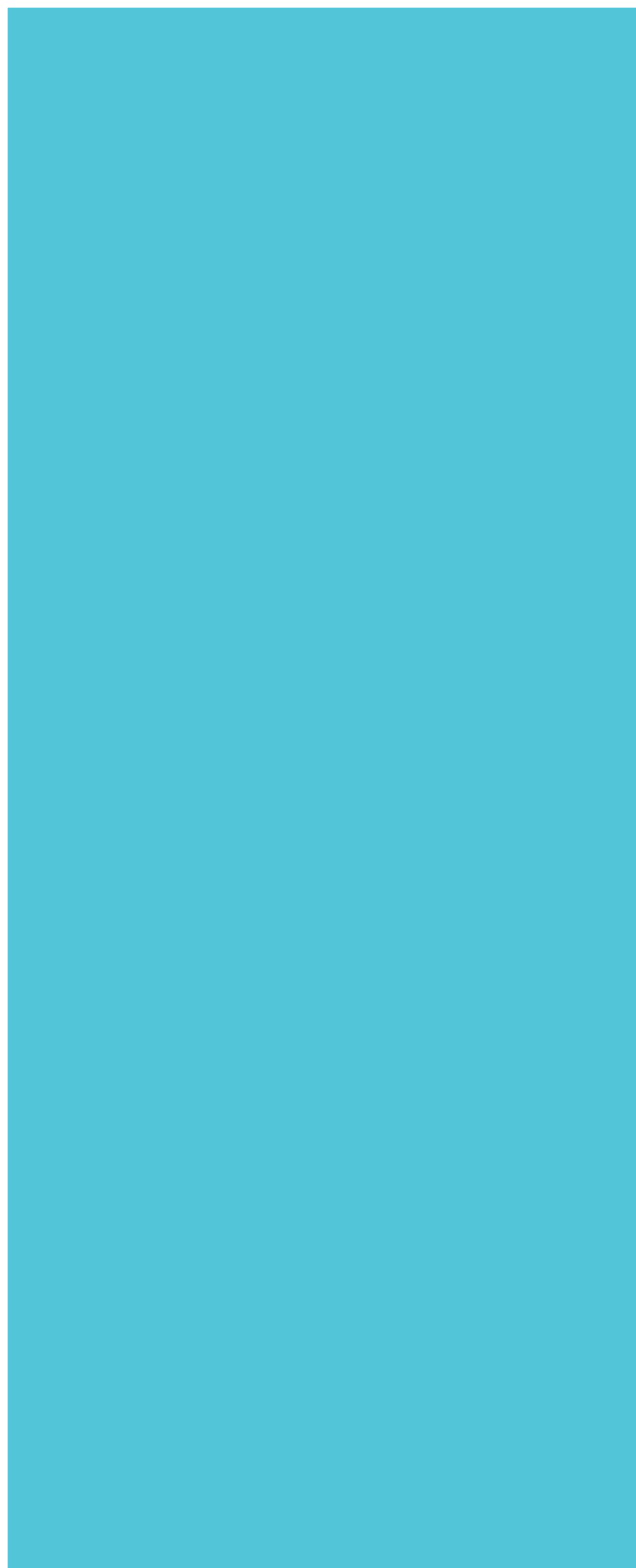
ECIS, together with the Learning Support Interest Team; chaired by Dr. Peggy Pelonis and Ms. Chris Perakis invite all professionals to join us for two days of sharing ideas about inclusion, social-emotional learning, as well as, other areas of student support.

The conference will take place at the International School of Luxembourg on September 27th-28th, 2019. What a great way to begin a new school year!

Keynote speakers will include Lisa Westman, who will speak on student-driven differentiation, standards-based grading, and instructional coaching programs. Anna Sugarman, a long-time friend of ACS Athens, will focus on Educating the Gifted and Inclusive Classrooms and Schools. Paul Rasmussen will focus on Social Awareness and Mental Health.

We're happy that Ms. Natalia Maravegias and Ms. Danae Papaioanou were also invited to speak at this conference on the Implementation of Services at ACS Athens, and Inclusion and Best Fit Practices Within the School Setting.

ACS Athens Shadow Teachers will be represented by Ms. Maria Babi and Ms. Niki Kitsiou (ACS Athens alumni). They will be speaking on strategies used for





Dr. Stefanos Gialamas receives the Global Leadership Award in Athens from Ideagen Chairman and CEO George Sifakis, for his impact on Education, with his game changing model "Morfosis"

Events

Dr. Stefanos Gialamas Receives 2019 Ideagen Global Leadership Award

by Helen Maravegias,
Executive Assistant to the President

The Inaugural Ideagen EU 2030 Summit took place at the King George Hotel in Athens, Greece on July 31, 2019, where leaders and luminaries from across the planet and from across a variety of industries, were recognized for demonstrating leadership and impact in changing the world and furthering the 2030 Global Goals. Participants the world's leading companies, NGO's and public sector organizations including Microsoft, Coca-Cola, IBM, Capgemini, Amway, Otis, Disney, AARP, National Restaurant Association, Global Good, United Nations, EU, and countless other world-class organizations convening across sectors were represented.

ACS Athens President, Dr. Stefanos Gialamas, was recognized and received this prestigious award for his extraordinary leadership skills and tireless commitment in preparing tomorrow's leaders with ethos to serve humanity and make the world a better place to live in. His speech titled "Redefining Education for Young People to become Tomorrow's Leaders with Ethos" was well received by the attendees.

Ideagen was inaugurated in 2004 with one simple goal – to change the world. With its by-invitation members from the world's leading companies, NGO's and public sector, Ideagen serves as the platform for high-level cross-sector collaborations. Ideagen's objective is to

nurture and strengthen connections and communication between organizations, which, together, have the ability to create innovative solutions to some of the most vexing issues of our time.

The Ideagen Global Leadership Awards are awarded as an honor to the legacy of Ideagen's Chairman of the Board, Congressman Louis Stokes (1925-2015) and Ideagen's Chairman Emeritus former United States Surgeon General Dr. Kenneth Moritsugu.





Dr. Stefanos Gialamas during his speech at the Empowering Women & Girls Summit at the United Nations ECOSOC Chamber, which took place in New York, September 2019



Events

Introducing the ACS Athens Advisory Council

by Dr. Peggy Pelonis, Vice President

as members of the ACS Athens Board of Trustees, Mr. Nicholas Karambelas, Mr. Iraklis Prokopakis, and Mr. Nick Gialamas.

Advisory Council members include:

- ⊙ Mr. Jimmy Athanasopoulos
- ⊙ Dr. Gulay Barbarosglu
- ⊙ Mr. Slavko Bradic
- ⊙ Dr. Ed Burger
- ⊙ Dr. Abour Cherif
- ⊙ Ms. Maria Dimitropoulou
- ⊙ Mr. Mark Fragos
- ⊙ Dr. David Gleason
- ⊙ Ms. Irene Hayes
- ⊙ Prof Diarmuid Hegarty
- ⊙ Dr. Konstantinos Koutras
- ⊙ Dr. Yanni Alexander Loukissas
- ⊙ Mr. Chris Minoudis
- ⊙ Dr. Panetha Nychis Ott
- ⊙ Mr. Demetri Paneras
- ⊙ Mr. Leon Stavrou
- ⊙ Dr. Daniele Struppa
- ⊙ Mr. Stavros Yannouka
- ⊙ Mr. Troy D. VanAken
- ⊙ Dr. Julie E. Wollman
- ⊙ Dr. Eric A. Zillmer

The ACS Athens Advisory Council inauguration meeting took place in Washington D.C. in May 2019 preceding the 2nd annual Alumni Awards Gala event. Advisory members consisting of university presidents, Psychologist/Authors, bankers, business managers and social activists invited by Dr. Stefanos Gialamas ACS Athens president, to serve as a body of experts to the school's governance and leadership providing a connection between ACS Athens and current trends in education and the workforce for optimal preparation of students. The meeting was led by Dr. Peggy Pelonis, ACS Athens Vice President, who began by asking everyone to reflect and comment on the true meaning of education. Ultimately the council concluded that in addition to providing a strong educational platform where students will receive both knowledge and skills to succeed in a competitive world, the purpose of education is to help morph ethical citizens to serve humanity. Ethical citizens can ultimately use knowledge and skills to improve a social condition, develop sustainable programs, and innovate for the good of humanity. Advisory Council members offered their consultation time as well as opportunities, such as internships, for students to ultimately take advantage of, where they can be guided towards this higher purpose. In addition to the Advisory Council members, the meeting was attended by Mr. Ed Shapiro, President of the Shapiro Foundation and ACS Athens donor of scholarships for young refugee students to attend ACS Athens, as well





The ACS Athens Advisory Council Inauguration meeting, Washington D.C., May 2019



us pause – they should spur action – they should be agitators.”

Further to the Lifetime Achievement Award, Dr. Gialamas recognized alumnus Ms. Belina Korovessis, Class of 1978 for her dedication and unwavering commitment throughout the years to her alma mater in uniting alumni around the world through the ACS Athens Global Association. Ms. Annie Constantinides, Class of 1979, accepted the award for Ms. Korovessis, who was unable to attend. (<http://www.acsathensglobal.org>)

We were honored to have Harvard University Professor Nicholas Burns, former US Ambassador to the Hellenic Republic and former ACS Athens parent, as our guest speaker. His eloquent and warm speech was inspiring, and his presence truly lent to the event's success.

Dr. Gialamas acknowledged the Board of Trustees, Advisory Council members and the school's stellar leadership, faculty, and staff, as well as the members of the Organizing Committee for their support of this alumni initiative.

Without a doubt, a warm and positive tone was evident throughout the entire event, and everyone enjoyed the evening greatly. We look forward to the next such event in the spring of 2021! Hope to see even more alumni there!



Events

Superior Court Judge Stephanie Joannides, the honoree at the 2nd ACS Athens Global Alumni Achievement Awards Gala

by Helen Maravegias,
Executive Assistant to the President

The second ACS Athens Alumni Achievement Awards Gala took place on April 6, 2019, at the Capital Hilton Hotel in Washington D.C. This celebratory event drew together a wonderful group of alumni from around the world, prominent members of the community, fellow educators, and “friends of ACS Athens”! Alumnus and ACS Athens Board of Trustees Vice Chairperson, Mr. Nick Karambelas, was the Master of Ceremonies.

Dr. Stefanos Gialamas, President of ACS Athens, awarded the 2019 Lifetime Achievement Award to alumnus Hon. Stephanie E. Joannides, former Senior Superior Court Judge based in Anchorage, Alaska. Her achievements and exemplary leadership, with ethos and service to humanity, were a few of the many reasons she was selected to be the recipient of this award. Judge Joannides accepted the award with grace and gave a poignant speech, sharing experiences that ultimately defined her both professionally and emotionally. She ended by saying that “teaching moments surround us every day – they should make



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The positive impact of ACS Athens is celebrated at the 2nd Alumni Awards Event 2019

by Chris Perakis, Learning Support and Testing Center Consultant, The Institute

ACS Athens is always happy to hear about their alumni accomplishments in the years after they graduate from high school. Many alumni gatherings occur in Greece and in the USA for alumni to be in touch with all those who attended ACS Athens. The second bi-annual Alumni Award Event was established three years ago, where the event took place in New York with award recipients: Dr. Scott Parazynski and Dr. Anna Kaltsas.

This year the Awards event took place on April 6, 2019, at the Capitol Hilton, Washington DC. The prestigious event is becoming an important part of ACS Athens' efforts to honor excelling alumni and bringing the ACS Athens community around the globe together. Recipient of the Lifetime Achievement Award was Hon. Stephanie E. Ioannides, former Senior Superior Court Judge of Alaska.

Her professional achievements and exemplary leadership with Ethos and Service to Humanity were a few of the many reasons she was selected for the award, according to ACS Athens' President, Dr. Stefanos Gialamas.

Stephanie E. Ioannides, gave an emotional, heartfelt speech, during which she shared moments of impact in her life and career, and stressed the importance of helping others, and standing for what you believe is right and true.

Professor Nicholas Burns, of Harvard University, former US Ambassador to Greece and former ACS Athens parent, was the guest speaker of the evening. He gave an eloquent speech and recognized the positive impact ACS Athens had on his children's education as well. It was truly a joy to see him again after so many years and recall events we mutually attended during his stay in Greece.

Another touching moment was seeing students I had in the past, all grown up to wonderful women and men, with successful careers.

ACS Athens President, Dr. Stefanos Gialamas acknowledged the Board of Trustees and the school's stellar leadership and staff. He extended a recognition award to Alumna, and originator of the alumni community online platform, acsathensglobal.org, Belina Korovessis, for her dedication and tireless work throughout the years.

The organizing committee of this event was: Helen Maravegias, Belina Korovessis, Steve Medeiros, Chris Perakis, Annie Constantinides, Nick Karambelas, and Nick Larigakis.

We're all looking forward to putting together the next event in 2021!



Judge Stephanie Ioannides and Dr. Stefanos Gialamas



Annie Constantinides, Nick Larigakis, Helen Maravegias, Nick Karambelas, Chris Perakis



Ambassador Nicholas Burns at the podium



Award recipient Judge Stephanie E. Ioannides at the podium



Dr. Stefanos Gialamas with Ambassador Nicholas Burns, a long time friend and supporter of ACS Athens

Musings

A student from France shares his thoughts about ACS Athens

by Georges-Aimé Duquin, visiting student

I happened to visit ACS Athens in March of 2019, not having a clear understanding of what my motivations were to visit this school. As a matter of fact I am a French student; our teachers write on blackboards and tell us how important it is to be better than your neighbor. They tell us that school is everything, and if you do not succeed, you are not worthy; the “old school” pitch I guess.

Albert EINSTEIN once said: “Everybody is a genius, but if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.” From the day I read this quote, I was comforted in my perception that all my friends, classmates that had dropped out of school, or went to technical schools by default, were misunderstood geniuses.

The first thing that struck me while visiting ACS Athens, while taking a tour of the premises, was how many quotes on life, and how to overcome obstacles were graced the buildings, from the steps going into the primary school sector, to all the walls and doors of the various rooms and classrooms.

The second thing that struck me was how dedicated the staff was to their mission to transmit human values and to first and foremost convey human empathy.

Then it was quite astonishing to discover that a dog

was being part of the teaching team for mathematics and science so as to put children into concrete situations, and to allow them to experiment how knowledge can impact your environment, and how it can influence and empower you to care for those you love, and reach your goals, whichever they are.

In a nutshell, children get to see the bigger picture of knowledge straight away.

Already after a few minutes visiting ACS Athens, I understood that this school had succeeded to turn the educational system 180° degrees around! In other words, I realized that it was the educational pattern that was adapting to the students and not vice versa.

ACS Athens was also putting great emphasis on extracurricular activities, through a lot of creative art workshops, sports teams, discovering of new technologies and experimenting with them, which I found to be fabulous for it allows the children to blossom through their passions. Clearly demonstrating that quote I had come across: “Working hard for something we don’t care about is called stress. Working hard for something we love, is called Passion.” Simon SINECK

Finally, Julia Tokatlidou and Stefanos Gialamas showed us a particular class. It was the class of the youth to youth program composed of 18 pupils that were refugees from different countries of Africa and the Middle East. I was thrilled to see that people in need were benefiting from a springboard they would for sure take advantage of because they knew how much a world without education brings misery.

I became conscious through this intense visit, that the refugee students were surely aware that education alone yet wasn’t enough to fight the animal instincts that sleep in humankind.

I want to salute and thank Stefanos and Julia for giving hope and prospects for a better future for all these young people going through their school, and also for inspiring all of us accomplishing Martin Luther King’s dream which was “that all those who exist on earth would be judged for their creativity and not for their color or their socio-geographical origins. Stefanos and Julia put the Human being at the center of everything they teach and do.



- ◎ **Develop our camp by enriching it with new activities every year**

According to the founder of Amazon, Jeff Bezos: "Your brand is what other people say about you when you're not in the room."

Our ongoing efforts have resulted in a steady increase in participation numbers, word of mouth referrals and advocacy for our services. We can proudly say that our brand is our reputation!"



Summer Camp

ACS Athens Summer Youth Camp: an established tradition

by Angelos Dimitropoulos, PE Faculty

When other schools are out for summer, in our school grounds, there are still a group of educators, coaches, and volunteers standing at the front gate of ACS Athens as early as 8.30am, greeting over 500 children who attend our Summer Youth Camp throughout a three week period. Thanks to the invaluable work of our committed staff, the ACS Summer Youth Camp has built its brand identity by establishing a summer program, which is appealing to pupils who are looking forward to a unique fun and learning experience.

- ◎ **These were our steps in building our brand name:**
- ◎ **Researched our target audience**
- ◎ **Selected a name (Summer Youth Camp)/ logo (learn English while having fun - enjoy your summer in an English speaking environment)**
- ◎ **Offer a plethora of sport and academic topics**
- ◎ **Have a core team that is unchanged since 2006**







Facilities

Improvement and transformation 2017-2019

by Stavros Tzanetakos, Facilities Manager

As every year, a significant part of ACS Athens' planning is the upgrading of the facilities and infrastructures. During this year, we carried out several projects on campus, targeting the improvement of the premises and raising the standards, for the benefit of our students.

At this point, we feel the need to especially thank the people who shared our vision for continuous improvement and financially supported us to realize it.

- Mr. Suheil Sabbagh, a parent, and Chairman of the Board of Trustees, for his invaluable support to completely build and equip our new Media Studio.
- Mr. Hercules Prokopakis, a parent and Treasurer of the Board of Trustees, for his generous donation of servers and computer network switches.
- The PTO for its invaluable contribution to build and establish the Incubator of Students' Creative Ideas.

Completed in 2017-2018

Elementary School renovations

The Elementary School was renovated and redesigned to a great extent.

Works done affected all floors of the Elementary School, providing larger capacity, new spaces, and additional classrooms, as well as an enlarged cafeteria area.

After the renovations, the Elementary School can accommodate more students in a modern environment and well-equipped classrooms. The renovation project included the erection of three brand new classrooms, that have been evenly incorporated in the

existing buildings: a new and modern art room equipped with the necessary infrastructure, a Foreign Language classroom and a new fifth-grade classroom. Moreover, after redesigning and rearranging the internal spaces of the building, we established a new Writing Center, an additional ESL classroom, a Technology Lab, a new Counselor's office, and a larger Cafeteria/ Restaurant area; as well as utilized the existing space in a more efficient way, increasing the capacity of available classrooms to four per grade.

Apart from the building renovations, the network system was updated along with the associated racks and the rest of the technical equipment. In particular, all Elementary School network cabling structures were replaced by CAT6 Ethernet cabling, and all network plugs were replaced by new ones.

The above upgrade provides a reliable network structure for the current and future networking equipment to cover our needs for the next 15 years and possibly more. Computers, Access points, Security Cameras, and IP telephony rely upon the networking cable infrastructure to operate efficiently. In addition, the Elementary School is now ready to upgrade to IP telephony.

Summer camp office

A new office was created for the Summer Camp needs; the construction took place during the 2017 Spring break. It is an area of about 45m², located at the ground floor next to the administration building, consisting of three independent rooms: a waiting room, an office, and a small storage room. It is surrounded by a small garden and a few tables and chairs placed under a canvas awning, providing a pleasant outdoor waiting area for the parents.

This area, centrally located, is also used throughout the year by the Athletics/ Recreational Programs department.

Waterproof works

Major waterproof works on the roofs of certain building were undertaken, with the use of high-standard insulating materials. Facilities affected were: the gymnasium, the Middle and High school art rooms, the Atrium and the Weight room. Moreover, the Middle and High School art room balcony has been renovated to a great extent; the balcony floor has been paved with anti-slip tiles, and a thermal insulation layer has been installed on the roof of the building.

The roof of the gym has always been a problematic area that often puzzled us, especially during rainfalls. Due to this challenge, high-standard materials and techniques were applied, combining asphaltic-based and polyurethane-based modern materials that have provided excellent results.

Administration Building Reception

The Reception office has been redesigned and relocated to the ground floor of the administration building. The area has been renovated to provide a practical and functional reception area to the parents.

Learning Commons – The Hasib J. Sabbagh Library

The "Incubator of Students' Creative Ideas" (ISCI) is a specially designed new area that has been created in our main library, to facilitate the needs of our students for creative thinking and studying. The room is equipped with two state-of-the-art Windows PCs and one I-Mac, that provide our students with the appropriate tools to work on their creative ideas. Access to the area is controlled by an RFID lock, and the operation of the facility is managed by a designated group of students.

The main objective of this program is to provide our students with a "space," which they manage on their own offering them the ability to create and innovate.



Elementary School Cafeteria



Elementary School Art Room



Elementary School Art Room



The Athletics office



The Incubator of Students Creative Ideas (ISCI)

Natural Gas

During this summer, we implemented the use of natural gas for heating purposes in the following areas: the Elementary school, the Annex, the Middle school, the Administration building, the art-rooms, and the Academy.

Two major gas stations capable of supplying the entire campus with natural gas were installed. While designing the critical infrastructures, the future needs of the campus were taken into consideration, meaning that the installation would have the potential to supply the rest of the buildings as well as the pool with natural gas. The completion of this project will take place next year, thus shifting all the heating needs of our campus to natural gas.

Brand new pipelines were installed, dedicated to supplying the above-mentioned buildings with natural gas. Safe use of natural gas was our highest priority, therefore during construction we exceeded the technical standards imposed by the legislation. We have taken all precautionary measures against fire, installed an alarm system against gas leakage connected to the main electro-valves, which automatically shut down the main gas supply in case of a leakage, equipment to monitor the gas pressure and a good ventilation system in the boiler room.

Suheil Sabbagh Media Studio

We have built a state-of-the-art Video Production Studio. In the media studio, we can create video productions and produce live television programs and broadcast them over the network as well as live stream. The media studio offers the opportunity to our students to get involved in all stages of video and movie production. Media production equipment can provide a virtual set that can simulate any environment utilizing "green screen" technology.

The media studio is equipped with three 4K professional video cameras, professional lighting equipment, a digital 32-channel audio console with wireless and wired microphones, a live production mixing and broadcast video console (Tricaster®), and two post-production editing workstations. It can also accommodate up to ten student workstations in a classroom setting located in the control room of the studio. This facility has enabled the school to enhance its curriculum with specialized courses "script to screen," operating within the i2Flex educational platform of the school. This year, students from 9-12 grades participate in these courses, but classes throughout the school (ES/MS/Academy) benefit from media components produced in the Media Studio.

The Theater @ ACS Athens – Audio equipment upgrade

Running its 13th year of operation, the Theater at ACS Athens was in need of a well-deserved technological upgrade.

After the acquisition of a High Definition, Digital, Twin lamp data projector (Panasonic PT-DZ870), back in January 2016, the time had come for an upgrade in the theater audio equipment. This was a great opportunity to move to the digital era. In September 2017, a new digital mixing desk (MIDAS M32) was purchased to replace the old analog Midas Verona 48. The upgrade was completed in December with the purchase of 4 digital latest technology wireless microphones (SHURE Axient Digital) equipped with state of the art DPA headsets.

Upgrades in the lighting equipment and all video infrastructure (cabling network) are being planned for the near future.

Server Room

This year we have upgraded a major part of our server infrastructure; we are now using virtual services on a new server cluster. Practically, this means that when one server fails, another one

takes over allowing users to have continuous access without any interruption. Our file and database server are now being hosted on the new cluster. The new server cluster has increased efficiency and productivity due to its higher storage capacity.

Renovation of Elementary School Boiler Room

Continuing last year's plan regarding the boiler-rooms renovation, we renovated the Elementary school boiler room during this year.

The boiler room was old and aged. The installation layout was uneven, wear, and tear was evident everywhere. Basic components were working poorly; pipes were leaking and, in a nutshell, all the equipment was in poor condition.

The new boiler room has taken into consideration modern and updated design techniques and technologies, incorporating energy-saving tools and equipment.

At this moment, all old boiler rooms of ACS Athens are renovated and upgraded.

You can see below a few representative pictures of the boiler rooms before and after renovation.

- ⦿ Complete renovation of building elements; the floor has been restructured to provide incline for water draining; walls have been rearranged according to regulations and standards for natural gas future retrofit.
- ⦿ New boilers and burners have been installed, as well as new piping, pumps, valves, and auxiliary components; all of them in a well-shaped and organized layout.
- ⦿ Automation and energy-saving systems have been installed.

New inverter circulating pumps, made in Germany, have been installed.

Inverter system achieves energy-saving and is capable of matching the circulator in the most suitable power that the installation demands.

Modern compensation three-way valve and suitable controllers have been installed, performing continuous monitoring of the environmental temperature and the heating needs, automatically matching the boiler operation to the minimum required level.

The result is less boiler running time and consequently, less energy consumption.

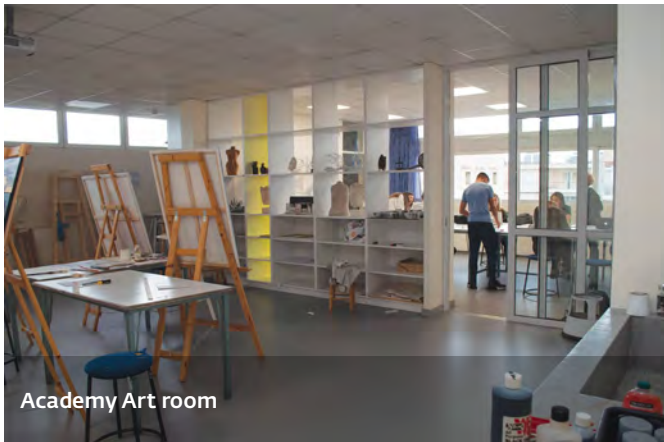
New Siemens automation systems, equipped with suitable sensors, have been installed in boiler rooms, providing the potential for continuous monitoring and remote control operation of boiler rooms.



Elementary School back yard



Elementary School back yard



Academy Art room



Academy Art room



Wellness and Tai Chi training room

Completed in 2018-2019

As every year, a significant part of ACS Athens' planning is the upgrading of the facilities and infrastructures.

During this year, we carried out several projects on campus, targeting the improvement of the premises and raising the standards, for the benefit of our students.

At this point, we feel the need to especially thank the people who shared our vision for continuous improvement and financially supported us to realize it:

- ☉ Mr. Hercules Prokopakis, a parent and Treasurer of the Board of Trustees, for his generous donation of the central network router.
- ☉ The PTO for its invaluable contribution to the building of the new playground in Elementary school.

Elementary School back yard

The backyard of the Elementary school has been fully renovated and transformed into a modern and stylish playground area for the joy of our elementary school students.

We have established modern recreational equipment on a ground newly paved with shock-absorbing safety tiles, stylish awning systems over picnic tables equipped with board games, and a long track lane, which provides a nice and wide area for various activities.

Furthermore, the existing soccer field has been resurfaced with two layers of a soft resin-based coating to provide children with a degree of protection in case of falls.

As an ending point, the whole playground area has been certified by TUV for safe use.

The project was kindly financed by the PTO of our school.

Middle & High School Art rooms

The Middle and High School art rooms have been fully redesigned from an architectural point of view and renovated to a new, modern, and up-to-date educational art facility. New furniture sinks and water facilities were installed, and two new restrooms have been built for the comfort of the art students. Electrical installations have been fully renewed to ensure safety compliance.

Elementary School Physical Education

The Elementary School Physical Education room has been fully redesigned and considerably expanded after taking the space of the old bookstore to provide a contemporary and significantly larger space for physical activities. Supporting rooms, like offices and storage rooms, have also been built to accommodate the increased needs of the personnel. As part of the renovation, a new classroom was also built to facilitate the various needs of the students.

The new Physical Education room was designed in such a way as to provide a large and unified area for activities that have the capability of being split into two separate rooms, thus giving teachers the flexibility of organizing multiple activities at the same time.

New Bookstore at Middle school basement

The old bookstore has been moved to a new location to facilitate the needs of our school more efficiently.

The new area is located in the basement of the Middle School and has been renovated to a great extent to be able to host the new bookstore and the necessary facilities and equipment.

New multi-purpose wellness and Tai Chi training room

An old storage room originally located at the terrace of the Administration building was fully taken down and transformed into a large multipurpose room currently used as a Tai Chi training room. For this purpose, we merged the old storage room with adjacent spac-

es, leading to the erection of a new, elegant, large room, equipped with all necessary facilities to function as a Tai Chi room and meet the diverse needs of our school.

New faculty lounge for Middle school

Two existing rooms of the campus were merged, renovated, and turned into a large faculty lounge, capable of accommodating the educational staff of the Middle School. The faculty lounge has been refurbished and equipped with the appropriate facilities that it may offer a comfortable place for our educational personnel.

New Combo rooms for High School

Combo rooms are classrooms specifically designed to serve the needs of integrated team-taught courses, by providing more flexible learning spaces and technological support that promote collaboration, project-based learning, simulations, and the izflex blended learning methodology.

During the summer projects, three large classrooms, of about 90-100 m² each, were built and properly geared to operate as combo rooms, providing more opportunities for team-teaching.

New working stations in Middle School and Academy

Part of the redesigning process of our schools was to create two comfortable and fully-equipped working stations for our teaching personnel.

New classrooms in Middle School and Academy

By redesigning and effectively utilizing various spaces in Academy and Middle School, we managed to create three additional classrooms, fully equipped with the appropriate educational gear, providing the Middle and High School with a bigger capacity.

Health Office

The Health Office has been thoroughly renovated to meet the standards of a modern and stylish healthcare unit. The complete rearrangement of the space, along with the new furniture installed, reflects a modern and ergonomic environment.

Waterproof works

Major waterproof works on the roof of Middle School were undertaken, with the use of high-standard insulating materials. Moreover, a thermal insulation layer was installed on the roof of the building. The balcony floor has been paved with anti-slip tiles, providing a nice outdoor space for diverse activities.

Natural Gas for pool heating

During last summer, we completed natural gas installation on our campus. The heating system for the pool, the gym, and the theater have all shifted to natural gas, completely phasing out the use of oil.

Briefly, our natural gas installation comprises of two main gas stations capable of adequately meeting our heating needs. Regarding the safe use of natural gas, which is our highest priority, we have exceeded the safety standards imposed by the legislation and have taken precautionary measures against fire, installing the appropriate gear to ensure safe operation.

Gas detectors, along with alarm systems, have been independently installed to all the boiler rooms, connected to main electro-valves, which automatically shut down the main gas supply in case of a detected gas leak, giving at the same time an audible and visual alert signal.

Central Network router

Last summer we replaced our central network router. Our Cisco 4507R Router was replaced by a state-of-the-art Cisco 9407R Router. The central router is the component that connects all other net-

work components (switches, wifi access points, firewall, and servers) and manages all network traffic. In other words it's the "heart" of our network. The router was a kind donation of Mr Prokopakis, who is the Treasurer of the Board of Trustees

The Cisco 9407 router has a redundant Supervisor Engine (CPU) that protects network functionality against hardware failure. It delivers state-of-the-art High Availability (HA) with capabilities like Cisco StackWise Virtual technology with In-service-software-upgrade (ISSU), SSO/NSF, uplink resiliency, N+1/N+N redundancy for power supplies. The addition of the new SUP-1XL-Y supervisor allows unique investment protection through 25 G uplink connectivity option as an alternative to 10 G in the core. The platform also supports advanced routing and infrastructure services, SD-Access capabilities, and network system virtualization.

The new 9407R will cover our campus networking needs the next eight years. The platform provides unparalleled investment protection with a chassis architecture that is capable of supporting up to 9 Tbps of system bandwidth and unmatched power delivery for high-density IEEE 802.3BT (60W PoE).

Structural Upgrade of Theater

In its 13th year of operation, the theatre building went through a structural upgrade so that it could conform to the latest structural standards. The decision was made after the completion of a technical study by static engineers, taking into consideration the large number of people that are potentially gathered in this area (approximately 500).

The project commenced in the summer of 2018 and focused on the erection of supplementary columns and beams, ensuring that the structurally upgraded theater building could withstand the impact of even a major earthquake. In addition, for the needs of the structural upgrade, all of the electromechanical equipment installed on the terrace of the theater was fully dismantled and temporarily moved to another location of the school, and then moved back again and reassembled after the completion of the structural works.

Major phases of the project are as follows:

- Dismantling all the electromechanical equipment, main machinery, piping, and electrical installations.
- Moving all the main machinery, pipes, cables, and air-ducts to various terraces of the campus.
- Taking down one of the two main power supply stations of the campus.
- Building new structural elements, columns, and beams required for the reinforcement of the theater building.
- Moving back all the electromechanical equipment onto the theater terrace and re-assembling it.
- Carrying out the complete piping, electrical, and air ducts installations, as well as the required automation.
- Waterproofing the terrace.
- This complex and challenging project is still in progress and is expected to be fully completed sometime in 2019.
- We would also like to sincerely thank our school's maintenance team for their continuous support, which allowed us to complete the projects without affecting the school's everyday operation.



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