THE EDUCATION FUND
FOR EXCELLENCE IN MIAMI-DADE PUBLIC SCHOOLS

2018-2019 Ideas with IMPACT

Engaging
STEM/STEAM
projects for every grade level!

Robots, Tuning Forks,
Shakespearean Kings...
30 inspiring
ways to cover
FLORIDA STANDARDS

IdeaEXPO
The Teacher Conference
Earn 9 MPPs

THE EDUCATION FUND

FOR EXCELLENCE IN MIAMI-DADE PUBLIC SCHOOLS

INNOVATION IN ACTION FOR EDUCATION

The Education Fund enlists the support of the private sector to improve Miami-Dade public schools and bring excellence to public education. Our work reaches all 18,000+ teachers in 430+ schools and makes a difference in the lives of thousands of students.

- $52 million raised for public schools
- 32,039 students' eating habits improved through an edible garden laboratory initiative
- 34% increase in college enrollement attained as part of a national demonstration project
- $8.7+ million in free supplies for classrooms, benefitting 1+ million students
- $2.7 million granted to teachers to foster student achievement in 4,700+ classrooms
- 10,500+ computers to students and parents
- $1.1+ million raised for schools' visual arts programs
- 2,200 business professionals teach for a day

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Table of **Contents**

2 A Message from the Superintendent

3 Ideas with IMPACT Program Overview

STEM/STEAM
Sponsored by Ford Motor Company Fund

6 Aerial Ballet: A Swarm of Dancing Drones

7 Assess with Less Stress

8 Google Street View and Classroom Floor Game: Navigating the Coordinate Plane

9 Green Dreamers Power Up Using Wind Energy

10 iCodeMe

11 iSTEM Girls

12 The Shape of Art Through Math

13 Out of the Park

14 Bungee Jumping and More... Project-Based Algebra

Language Arts
Sponsored by Assurant

16 Alexa in the Classroom

17 Darth Vader Meets Macbeth: A 3-D Tragic Hero's Journey

18 Get on the Ball!

19 Literacy in a Pot

20 The Readers' Café

Financial Literacy
Sponsored by TD Bank

23 TD Bank Youth Financial Literacy

24 Financial Algebra: Just a Few Keystrokes Away

25 iPlay: Using YouTube for Financial Literacy Concept Connections

26 Once Upon a Time in Economics

27 TSI Tanked! Challenge

Robotics
Sponsored by FPL

29 Building Robots... and More (SD ROBO TECH)

30 Dashing Through STEAM

31 The Power of Math in LEGO Robotics

Visual/Performing Arts

34 Interwoven Fibers' Optics

35 Getting Forked UP, Taking a Bite Out of a Major Scale!

36 Passionate Pots

Holocaust Education/ Social Studies/Civics

38 Anne Frank and Me

39 Unraveling the Past to Create a More Inclusive Future

40 The Art of Arguing

41 End the Silence of Human Trafficking

42 We the Voters

43 Writing About Miami (WAM)

College Preparation
Sponsored by Miami Bayside Foundation and Miami-Dade County

44 SmartPath: Guide to College Clubs

Other Resources

45 Register for the 2018 Idea EXPO!

52 Ocean Bank Center for Educational Materials Celebrates 25 Years! Shop for free classroom supplies

The Education Fund's 2018-2019 Ideas with IMPACT

Project Management:
Debra Alamo & Audrey Onyeike

Copy Writer: Debra Alamo

Graphic Designer: Edwina Lau

Contributor: Jocelyn Salazar

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Contact Us:
The Education Fund
6713 Main Street, Suite 240
Miami Lakes, FL 33014
305.558.4544 | educationfund.org

A Message from the **Superintendent** of Miami-Dade County Public Schools

For more than 30 years, The Education Fund has been a key partner of Miami-Dade County Public Schools, sponsoring initiatives that support teachers with networking, training opportunities, grant funding, and more. By providing teachers the opportunity to be catalysts for innovation in the classroom through programs such as Ideas with IMPACT (formerly IMPACT II), The Education Fund provides teachers the resources to bring their ideas to life and an avenue to share proven ideas with others. In this way, their leadership is rightly recognized and highlighted.

I have attended the Ideas with IMPACT EXPO- The Teacher Conference for many years, talking with teachers who value the exchange of ideas at this annual event. Having been a teacher, I understand the need to stay ahead of the curve. I applaud The Education Fund for continuing to include all subjects - not only STEM and entrepreneurialism - and for incorporating lessons that celebrate our diversity and promote inclusiveness.

As we know, Ideas with IMPACT facilitates the sharing of innovative, cost-effective teaching ideas in a user-friendly network that includes the Ideas with IMPACT catalog, curriculum "how-to" Idea Packets, The Idea EXPO - The Teacher Conference, and Innovator and Adapter Grants. I commend the dedicated educators who contribute their time and talents to the IMPACT network. You make a difference for our students and our community.

Alberto M. Carvalho
Superintendent of Schools

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Ideas with IMPACT

Building a Network of Support and Best Practices

Get inspired by the **Ideas with IMPACT** found in this catalog!

Visit **educationfund.org** for curriculum details on these **Ideas with IMPACT** and 100+ more!

Register for the **2018 Idea EXPO The Teacher Conference** by October 24th for a 50% discount **educationfund.org**

Attend the Idea EXPO on **December 1st**
Connect with other educators and share your best practices!

Select from 90+ hands-on workshops including **STEM/STEAM lessons!**

Apply for an **Adapter Grant**

Implement project

Celebrate!

Have your own **Idea with IMPACT?** Apply to be a Disseminator at the 2019 Idea EXPO. **educationfund.org**

FORD MOTOR COMPANY FUND

Driving a **Brighter Future**

Since 1949, Ford Motor Company Fund has invested more than $1.5 billion around the world to build stronger communities and help make people's lives better by supporting programs in education, safe driving and community life.

For opening minds, creating opportunities, and helping to create a brighter future, Ford Salutes The Education Fund.

www.community.ford.com
#fordgivesback @fordfund_

The Education Fund's Ideas with IMPACT program offers teachers new ways to engage South Florida students.

Ford honors your efforts to build a stronger, more innovative future for your classroom.

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Aerial Ballet:
A Swarm of Dancing Drones

Programming drones to dance creates excitement among students

Everyone loves a show, so imagine a swarm of drones for entertainment. In this project, students combine the coding of drones together with real time movements, storytelling, and a music score, to create an amazing dance in the sky - an aerial ballet. Using a collection of small drones called 'SWARMS' that can autonomously coordinate with each other, drone flights are coded by students to move automatically instead of manually. Small drones can be flown very safely around the school or classroom, controlled by a number of apps or student programmed code. The students also use coding blocks or Arduino code to program a drone to fly in a variety of directions, thus creating a "dance." This takes into account outcomes from the curriculum such as position and direction, properties of 2D and 3D shapes, parallel and perpendicular lines, problem solving, logical and computational thinking – key skills that young people require as they move into the future workplace.

CONTACT INFORMATION

SUZANNE BANAS

SCHOOL: South Miami Middle Community School

PRINCIPAL: Fabiola Izaguirre

EMAIL: sbanas@dadeschools.net

PHONE: 305.661.3481

DOWNLOAD PROJECT INFO: http://bit.ly/2w06HbB

STANDARDS

SC.68.CS-CS.2.2 Solve real-life issues in science and engineering (i.e., generalize a solution to open-ended problems) using computational thinking skills.

CTE-GEN.68.GENRL.17.14 Apply math, reading, science, and critical thinking skills as they relate to industry.

VA.912.C.1.2 Use critical-thinking skills for various contexts to develop, refine, and reflect on an artistic theme.

VA.912.S.2.3 Demonstrate visual-thinking skills to process the challenges and execution of a creative endeavor.

VA.68.F.1.1 Use non-traditional thinking and various techniques to create two-, three-, and/or four-dimensional artworks.

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"The use of programmable devices, including drones, is just one of a number of fantastic strategies that teachers use in the classroom."

STUDENTS

This project was done in many ways. Through the Physical Science course on Engineering Fridays (once a week), students learned to code using Arduino. First, they created a Robot Dance party and then they created a drone flight dance to work as a Swarm. This project was also used with an after school class in aeronautics, which met twice a week. Students began with the principles of flight and design, working up to programming the flight of the drone and incorporating the principles of flight.

MATERIALS & RESOURCES

Materials include programmable drones, such as DJI Tello Drones; computers with Arduino coding ability as well as other coding apps; LED bulbs for the firelight show; drones flown outside need a drone operator's license or someone who is licensed. Teachers need to understand Arduino and other coding methods. Resources can include various drone operators and drone clubs and drone tech shops to provide the students with the knowledge of drones, flight principles, and coding.

ABOUT THE TEACHER

Suzanne Banas is a National Board Certified teacher, with a Ph.D. in Science Curriculum and Educational Leadership. For 25 years, Dr. Banas has taught middle school science in Miami-Dade County Public Schools. Since 2003, she has been an adjunct professor at Miami Dade College for the Education Department. Her recent publications include "Emerging Young Investigators" (Harvard Press) and "The Florida Science Teacher" (Publishing Student Research Spring 2014). Dr. Banas' recent honors include the 2016 State Winner EdSurge Fifty States Project and the 2017 Top Finalist for the Teacher Hall of Fame.

CONTACT INFORMATION

MICHELLE SINGH, NBCT

DEPARTMENT: Division of Instructional Technology

POSITION: Digital Convergence Facilitator and Trainer

EMAIL: michellesingh@dadeschools.net

PHONE: 305.995.7605

DOWNLOAD PROJECT INFO: http://bit.ly/2vzVjUa

Assess with Less Stress

Students become engaged and remember concepts better when they use interactive online tools

Sometimes, assessing students' knowledge is as challenging as teaching the subject matter. Students tend to feel stress when they take a paper test and often do poorly. When teachers use various online tools, assessments can become engaging, interactive, relevant, and stress-free. Students do not see these as tests and perform naturally, thus revealing their actual acquisition of knowledge. One example of an assessment tool that teachers can use is EDpuzzle. This interactive video platform helps teachers differentiate instruction, check student understanding, boost classroom engagement, and improve student learning. Teachers can also use Padlet for students to complete a collaborative or individual activity that includes images, links to sites, and text that demonstrates their knowledge of the content they just learned. Additionally, teachers can use Poll Everywhere as an exit ticket to assess students' knowledge of the overall concept and receive immediate feedback to reteach and/or reward students for their efforts.

"Formative assessments that are engaging, relevant, and relatable for students, allows learning to come alive in the classroom and retention to take place."

STUDENTS

Hundreds of students in grades 6-12, on Reading and Math levels 1-5, utilize these online tools in the schools throughout the district. These various tools can be utilized for all curriculum, subject areas, class and grouping sizes, and ESOL/ ESE levels.

MATERIALS & RESOURCES

Materials include a computer or device, Internet, projector, speakers, and interactive whiteboard. Video tutorials, handouts, and guides will be provided for each of the following assessment tools: Kahoot, Quizlzz, Padlet, Quizlet, EDpuzzle, and Poll Everywhere. Resources include the Media Center for students to have access to computers and devices.

ABOUT THE TEACHER

Michelle Singh has over 13 years of experience in the field of education. She was a secondary English/Language Arts and Reading instructor and currently supports the technology needs of K-12 teachers, students, and administrators as a Digital Convergence Facilitator. She has worked extensively on learning and teaching Microsoft, Nearpod, Google, and other technology platforms to help further the movement toward technology integration and 21st Century teaching and learning. Ms. Singh holds National Board Certification in Adolescence and Young Adulthood/English Language Arts. Since 2005, Ms. Singh has been fortunate to receive grants and funding from the Education Fund, Donorschoose.org, and Florida Learn and Serve.

STANDARDS

INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION (ISTE)

2. Design/Develop Digital Age Learning Experiences/ Assessments Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning.

5. Engage in Professional Growth and Leadership Teachers improve their professional practice, model lifelong learning, and exhibit leadership by promoting and demonstrating the effective use of digital tools and resources.

SCIENCE

SC.35.CS-CC.1.3 - Identify ways that technology can foster teamwork, and collaboration can support problem solving and innovation.

SC.68.CS-CP.3.1 - Select appropriate tools and technology resources to accomplish a variety of tasks and solve problems.

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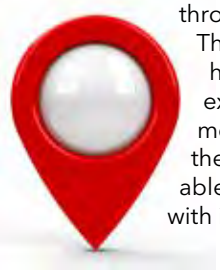
Google Street View and Classroom Floor Game:

Navigating the Coordinate Plane

Enthusiasm abounds for students in their quest to understand the concepts associated with the coordinate plane

Coordinate plane – what is that? This can remain an abstract puzzle for students unless it is made relevant. Students must delve into the concepts associated with the coordinate plane and its many uses in mathematics. To begin the project, students are formally introduced to the coordinate plane through a classroom floor game. By marking the classroom floor into four equal quadrants, four groups of students competitively earn points by finding locations on the plane, constructing geometric shapes and lines, and reflecting and translating these lines and shapes. Once the students are comfortable with the coordinate plane through the floor game, Google Street View is introduced.



This aspect of the project infuses technology, local history, math history, and coordinate plane mathematics into an even more exciting package. Using Google Street View to locate and measure distances between objects in the city and to implement the challenging activities involved, these students are better able to comprehend the coordinate plane, the ideas associated with it, and its usefulness in mathematics.

CONTACT INFORMATION

KELSEY MAJOR

SCHOOL: Everglades K-8 Center

PRINCIPAL: Ramon Garrigo

EMAIL: 1721@dadeschools.net

PHONE: 305.264.4152

DOWNLOAD PROJECT INFO: http://bit.ly/2noONvb

STANDARDS

MATHEMATICS

MAFS.6.NS.3.6a The concept of a rational number as a position (point) on the number line will be reinforced. The number line serves as a one dimensional introduction to location and position. The two dimensional layout of the coordinate plane introduces the student to positioning and location in space.

MAFS.6.NS.3.6b and c The development of the concept of an ordered pair. The development of the ordered pair concept introduces the idea of location in a plane. The signs of the ordered pairs will determine the quadrant in which the point is located, thereby introducing the concepts of quadrants.

MAFS.6.NS.3.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane.

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> *"Teaching abstract mathematical concepts with a real life context invigorates the minds of the young."*

STUDENTS

Approximately 110 students participated in this project from grades 6-8, with various achievement levels, meeting at least twice a week. This project can easily be adapted to other ages, levels of achievement, and group sizes because the mathematical concepts are embedded in technology activities that students are excited about doing.

MATERIALS & RESOURCES

Materials include masking tape; a dry erase marker; floor tiles representing a unit (If the floor is not tiled, the marker can be used to establish units.); a desktop computer, laptop, or a smartphone; and an entire lesson plan will be provided for the technology-based part of the project. Resources include the Internet, and computer lab or smartphones (if needed).

ABOUT THE TEACHER

Kelsey Major has been a math teacher (6-12), SAT instructor, math tutor, and an academic advisor and coach for over 12 years. He has received grants from The Education Fund and DonorsChoose to purchase digital devices so that his students could skype with students from around the world through The Global Scholars Program. He has used this project, or a variation of it, for the entire school year.

CONTACT INFORMATION

LINDA BUQUET

SCHOOL: Gateway Environmental K-8 Learning Center

PRINCIPAL: Tiffany Anderson

EMAIL: lbuquet@dadeschools.net

PHONE: 305.257.6000

DOWNLOAD PROJECT INFO: http://bit.ly/2Mo0ekl

Green Dreamers Power Up Using Wind Energy

Students combine engineering design with wind energy to power a city

Did you know that Jamaica has roadway lights that are powered by wind energy? That's just one of the facts that students learn in their research on how wind energy is being used around the world. They ask themselves what they already know about wind and power and how they can design a city that could be powered with wind energy. Imagining possibilities and thinking about several options, students begin to plan and create models with stages of construction, including diagrams and parts. Afterwards, they discuss what did and didn't work, and if their model needs improvement in one area or a complete re-do. Finally, they reflectively write and share the results of their task and how they can improve on the next model. Completing this project helps students to understand that they can create something from nothing and that in the future they have the potential to make a positive difference to help the planet use cleaner energy to power their world.

> *"The overall value of the project is to get students to see that they can create something from nothing and make it work."*

STUDENTS

One hundred 4th grade students of varying abilities, including ESOL, Gifted, and LD, participated in this project, meeting once a week in Art class to work with the art teacher as a partner in this project. The project can be adapted to any age or grade level and used with smaller or larger groups.

MATERIALS & RESOURCES

Materials include sticks, pencils, wooden dowels or straws, cardstock, cardboard paper or computer paper, brass fasteners, glue, hole punchers, pushpins, tape, scissors, rulers, crayons, and markers. Resources include a trip to the Frost Museum of Science to begin study of science and energy, and the FIU Engineering lab to view other examples of wind-powered turbines. The internet was utilized to research how wind energy is used in other areas of the world such as Canada, the Caribbean, Latin America, Asia, and Europe.

ABOUT THE TEACHER

Linda Buquet is an Elementary Education teacher with a Master's degree in Educational Media. She has taught students since 1992 in ages ranging from age 3-12 years.

This is a nice project to collaboratively plan with other teachers such as art or technology classes. It was used as a hands-on STEAM activity with parents during her school's annual STEAM Family Night.

STANDARDS

SCIENCE

SC.4.P.12.1 Recognize that an object in motion always changes its position and may change its direction.

SC.4.P.10.1 Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.

SC.4.P.10.2 Investigate and describe that energy has the ability to cause motion or create change.

SC.4.P.10.4 Describe how moving water and air are sources of energy and can be used to move things.

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iCodeMe

The creative aspect of coding allows students to literally 'see themselves' as coders

The United States is facing a shortage of computer programmers and computer scientists. This project aims to change that as students create still or animated self-portraits using Java Script. All students take a picture of themselves using their device or a teacher provided camera. Then, students use Khan Academy's tutorial and compiler to recreate their portrait. Beginner coders will learn how to code basic shapes, fills, strokes, and will be introduced to variables. Advanced students will learn to add animation to their program, including using loops. Spinoffs of the project include adding an image of a pet, using sounds, and coding an iconic historical figure. Final projects are printed and displayed so that students can complete a silent "gallery walk" where they provide constructive feedback to one another on the code and the artistry.

CONTACT INFORMATION
LISA HAUSER

SCHOOL: iPreparatory Academy
PRINCIPAL: Alberto Carvalho
EMAIL: lhauser@dadeschools.net
PHONE: 305.995. 1928
DOWNLOAD PROJECT INFO: http://bit.ly/2vV0eyx

STANDARDS

COMPUTER SCIENCE
SC.35.CS-CP.2.2 Create, test, and modify a program in a graphical environment (e.g., block-based visual programming language), individually and collaboratively.

SC.35.CS-CP.2.3 Create a program using arithmetic operators, conditionals, and repetition in programs.

SC.68.CS-CP.2.4 Develop problem solutions using a programming language, including all of the following: looping behavior, conditional statements, expressions, variables, and functions.

SC.912.CS-CP.3.1 Create a computational artifact, individually and collaboratively, followed by reflection, analysis, and iteration.

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> *"Students, who initially saw computer programming as inaccessible and uninteresting, find that computer programming is relevant and doable."*

STUDENTS

Both gifted and regular students in various grade levels (3rd-5th, middle school, and high school) have participated in different settings (e.g. clubs, competitions, workshops). The duration of the project can be as short as one and a half hours for coding, plus the time for the gallery walk. Additional time outside of the classroom can be allowed to complete the self-portrait.

MATERIALS & RESOURCES

Materials include computers, a camera, a printer, and sticky notes for the gallery walk. Instructions and assessment rubric developed for the activity as guidelines will be provided. Resources include a Khan Academy account (all M-DCPS students have an account through their portal). Students need access to an Internet connected computer, preferably one per student.

ABOUT THE TEACHER

Lisa Hauser has taught mathematics at M-DCPS and FLVS since 2001 (17 years). She was a 2016 Francisco R. Walker Central Region Teacher of the Year and District Teacher of the Year finalist. She received grants from The Education Fund in 2017 and has used this project for four years. Ms. Hauser has also developed a workshop curriculum for Code Art and has developed an all-female competition of the same name for the Miami Dade County Youth Fair where she has been the superintendent of the competition since 2016.

CONTACT INFORMATION

NAVIA GOMEZ

SCHOOL: Dante B. Fascell Elementary

PRINCIPAL: Margaret Farrarone

EMAIL: 237245@dadeschools.net

PHONE: 305.380.1901

DOWNLOAD PROJECT INFO: http://bit.ly/2vtqXTw

iSTEM Girls

Sally Ride Science Career books inspire girls to think about their own future in the fields of STEM

Gentlemen, move over - the ladies are coming! Although girls have come a long way in regard to their perception of what they can accomplish in life, there is still more educators can do to encourage girls to realize their full potential. iSTEM Girls is an initiative for female students that is designed to promote the learning of careers in the fields of STEM. Through research and the use of Sally Ride Science Career books, the girls read about the interests that successful women had as young girls themselves and how they turned their interests and talents into a STEM career. Included in each book is an interest inventory that enables the girls to learn more about themselves, their interests, and how they can use this as a guide when entering middle and high school for setting a career plan.

> *"The purpose of this project is to encourage my female students to realize their dreams and aspirations in becoming our future Scientists, Technologists, Engineers, and Mathematicians."*

STUDENTS

At least 34 female 5th grade students participated at least once per month in the iSTEM Girls initiative with varying levels of achievement and ranging in ages from 10-12 years old. This project can be adapted to include other grade levels, including primary grades by linking the older female students with their younger counterparts to encourage the love and learning of STEM. The program can be part of an after school club or enrichment activity.

MATERIALS & RESOURCES

Materials include items from science kits at school, the *Sally Ride Cool Careers in STEM* series, and numerous other books. Handouts on engineering and an interest inventory will also be shared. Resources include field trips to the Frost Museum of Science and the University of Miami Rosenstiel School of Marine and Atmospheric Science. Teachers can also use their school media center and public library as well as the internet for online resources such as the Hour of Code, EverFi, and NASA Kids Club and Exploration. In addition, speakers can be invited to speak at Career Day or throughout the school year to provide students with information on careers in STEM.

ABOUT THE TEACHER

Teaching for 19 years, Navia Gomez has received several grants through the Education Fund, the Toshiba Innovator Project, Donorschoose, and the Dream in Green Program. Ms. Gomez's accolades include the DCSTA Science Teacher of the Year 2010 and South Region Finalist for M-DCPS Teacher of the year 2018 among others.

STANDARDS

SCIENCE

SC.5.N.1.1: Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations.

SC.35.CS-CC.1.1: Identify technology tools for individual and collaborative data collection, writing, communication, and publishing activities.

CTE-TECED.68.ENTECH.01.06: Research a career in Engineering and Technology Education and present findings to the class.

MATHEMATICS

MAFS.5.OA.2.3: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

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The Shape of Art Through Math

Fine art and geometry are infused to improve student math comprehension

Students sometimes need a break from pencil and paper. For an innovative and colorful, hands-on project to enhance student geometry comprehension, the "Shape of Art" may be just the strategy that you've been looking for. Unleashing their artistic side, students color and paint shapes, manipulate fabric and ribbon into lines, rays, and angles, and design how to arrange everything on quality canvas. Divided into three teams: Designers (decide color location, shape placement, and which beads to use), Production Team (responsible for painting and arranging the material on canvas according to the Designers' plan), and Material Managers (check material supply, help with production, and oversee material consumption), students learn to communicate effectively as they work together on their creations. The result is two beautiful pieces of artwork that students are proud of - all while re-enforcing their understanding of lines, angles, and shapes.

CONTACT INFORMATION

LEAH BIDO

SCHOOL: David Lawrence Jr. K-8 Center

PRINCIPAL: Mary Kate Parton

EMAIL: 320508@dadeschools.net

PHONE: 305.354.2600

DOWNLOAD PROJECT INFO: http://bit.ly/2vRsd28

STANDARDS

MATHEMATICS

MAFS.4.G.1 Draw and identify lines and angles, and classify shapes by properties and angles.

MAFS.4.g.1.1 Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines.

MAFS.4.G.1.2 Classify two dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specific size.

VISUAL ARTS

VA.4.S.1 The arts are inherently experiential and actively engage learners in the process of creating, interpreting and responding to art.

VA.4.S.2 Development of skills, techniques, and processes in the arts strengthens all ability to remember, focus on, process and sequence information.

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> *"I wanted to give my students the opportunity to enhance their understanding of lines, angles, polygons, and quadrilaterals in a creative, colorful, hands-on way."*

STUDENTS

This project was implemented with 39 4th grade students, ages 9 and 10, and from all achievement levels. They met Monday- Friday, during their math block, which was 60 minutes. The project can be adapted for younger students, older students, and students in various ability levels as well as small group or whole group activity.

MATERIALS & RESOURCES

Materials needed: 2 large pieces of canvas, 2 sets of acrylic primary colors, 1 bottle of gorilla glue for fabric, feathers, and beads, 1 bag of mixed color feathers, 1 bag of mixed color beads, 4 rolls of ribbon in color of your choice, 1 bag of mixed buttons, 5 sheets of felts, or newspaper or magazines for cut out shapes, at least 5 pairs of scissors, 1 bag of mixed size paint brushes, and 2 bottles of finishing coating film that protects the finished product and acts as an additional adhesive for fabric and beads. All the products can be found at a local arts and crafts store. Additional resources for this project come from students who bring materials from home.

ABOUT THE TEACHER

Leah Bido began teaching in 2013 at a small private school in Homestead, Florida, that primarily served the migrant population. Afterwards, she transferred to Charter Schools USA for a year and this year is her second year with M-DCPS. Her students experienced this math art project due to the local PTSA Grant Program. Ms. Bido hopes to implement this project again next school year.

CONTACT INFORMATION

VIANEY SANCHEZ

SCHOOL: Palmetto Elementary

PRINCIPAL: Eric Torres

EMAIL: 321360@dadeschools.net

PHONE: 305.238.4306

DOWNLOAD PROJECT INFO: http://bit.ly/2vS2t5r

Out of the Park

Measurement conversions and time comparisons are a baseball hit for students

Math is everywhere, even at a baseball game! Focusing on measurement conversions and elapsed time for math instruction, students learn that mathematics is incorporated in everything around us, including sporting events. After an extensive unit of study, students are first presented with the dimensions of a baseball field and the weight of basic baseball park food menu items in customary and metric units. Divided into groups, they are given conversion problems to solve without using any conversion tables. After much discussion, groups compare answers and the class reviews as a whole. Students then calculate how long a baseball game lasts by taking the start/end times and elapsed time of Major League Baseball's longest game, shortest game, and the Miami Marlins' most recent game. Again, student groups discuss with each other and the whole class to determine if start/end times match up with elapsed time. Both parts of this lesson not only review the various components of the standard, but also promote student collaboration while still focusing on individual student understanding.

> *"Students understand how different types of math exist all around them — even at the ball park!"*

STUDENTS

Twenty-nine 5th grade gifted students participated in this project, meeting daily. This project can be completed with any 5th grade class of any level, either in small groups, whole group, or individual. It can be used as a review or adapted into a project or guided reinforcement. It can also be used for different sports and extended to go into different subtopics of math to cover other standards or multiple standards.

MATERIALS & RESOURCES

The following information should be given to students: Baseball field dimensions, weights of food menu items, and lengths of baseball games (start-end: longest/shortest, compare elapsed time). A SmartBoard would be great to show the dimensions of the baseball field. It can also be used to compare dimensions with other baseball fields/parks. Resources include an online baseball almanac, diagrams of baseball fields, and a field trip to a baseball stadium (not necessary but could be useful).

ABOUT THE TEACHER

Vianey Sanchez has been teaching for five years. She taught 1st grade for three years, and as Math core leader for her school and grade level, she has been incorporating project-based math activities. This is the second year she has taught 5th grade.

STANDARDS

MATHEMATICS

MAFS.5.MD.1.1: Convert among different-sized standard measurement units (i.e., km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec) within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

MAFS.K12.MP.1.1: Make sense of problems and persevere in solving them.

MAFS.K12.MP.4.1: Model with mathematics. Students can apply the mathematics they know to solve problems in everyday life, society, and workplace.

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Bungee Jumping and More...
Project-Based Algebra
Students learn math by exploring the world around them

Algebra 1, and math in general, are often too abstract for the average student. For that reason, there is an ever-increasing achievement gap between advanced and regular math students. Using this real-world approach to teaching mathematics through a series of project-based lessons affords more students the opportunity to understand and engage with abstract concepts. In one lesson, students learn about slope, y-intercept, scatter plots, and linear regression through a linear bungee jumping challenge. Using rubber bands, they build bungee cords and collect data (number of rubber bands vs distance fallen). Students graph the data on a scatter plot, find a line of best fit, and use their approximation to extrapolate the number of rubber bands needed to drop a given weight from the roof of the building. They then build the predicted bungee cord and the teacher takes the bungees to the roof for testing. Upon seeing the results, students come away from this lesson with a better understanding of how abstract concepts can be made concrete and applicable in the real world.

CONTACT INFORMATION

DALE ADAMSON

SCHOOL: Howard D. McMillan Middle School

PRINCIPAL: Hilca Thomas

EMAIL: adamson@dadeschools.net

PHONE: 305.385.6877

DOWNLOAD PROJECT INFO: http://bit.ly/2waHXx3

STANDARDS

MATHEMATICS

MAFS.912.F-IF.2.6 Interpret functions that arise in applications in terms of the context. Calculate and interpret the average rate of change of a function over a specified interval. Estimate the rate of change from a graph.

MAFS.912.S-ID.2.6 Summarize, represent, and interpret data on two categorical and quantitative variables.

MAFS.912.S-ID.3.7 Interpret linear models. Interpret the slope and the intercept of a linear model in the context of the data.

MAFS.912.A-SSE.2.3 Write expressions in equivalent forms to solve problems. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

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"Students see math from a new and exciting perspective!"

STUDENTS

Approximately one hundred 7th-8th grade Algebra students participated in these project-based lessons. Students of any ability level can complete lessons. Additionally, these lessons can be modified easily to work with math students from the 6th grade (unit rates, solving equations, fractions/decimals) and as high up as Algebra 2 (11th grade).

MATERIALS & RESOURCES

Materials include rubber bands, weights, measuring tapes, and student handouts (to be provided in curriculum packet). Resources could include Internet and student devices, but they are not required.

ABOUT THE TEACHER

Dale Adamson has received numerous awards throughout the years, such as the Milken Educator Award 2017, Magnet Schools of America Southeast Regional Teacher of the Year 2018, Florida High Impact Teacher 2015-2017, Education Fund Disseminator Grant Recipient 2017, and Education Fund Adapter Grant Recipient 2014-2017, to name a few. He has been using these project ideas in his classroom for 3 years. No additional personnel is needed to complete these project-based lessons.

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The Assurant Foundation is proud to support public education in Miami-Dade County. We believe in teachers, and that's why we work with The Education Fund. Through our partnership, we know that teachers will get the resources and professional development opportunities that are so valuable. Thanks for all that you do to build brighter futures.

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Alexa in the Classroom

Using Alexa as a teaching assistant elevates students' learning during differentiated center time

Ever feel like you just can't do it all? Well, teachers, now you don't have to, especially when it's time for differentiated instruction. By incorporating Amazon's Echo devices into the classroom, Alexa becomes an invaluable assisting and teaching tool. It provides answers to questions by students who are working at their independent centers while the teacher conducts differentiated instruction at the teacher-led center. Gone are the frequent interruptions that usually occur which require the teacher to stop instruction and answer general spelling, grammar, math, or translation questions. Even with more complicated activities, Alexa proves to be a great aid to students. For instance, if the teacher has just introduced the concept of idioms (e.g. it's raining cats and dogs) to the class, once they break into their groups, students can then ask Alexa the pertinent questions needed to help them understand and come up with more idioms for a journal writing group assignment. This is crucial to ESOL students who have never been exposed to idioms and who struggle generally with the complexities of the English language.

CONTACT INFORMATION

ZENY ULLOA

SCHOOL: Kendale Lakes Elementary

PRINCIPAL: Martha Jaureguizar

EMAIL: zulloa@dadeschools.net

PHONE: 305.385.2575

DOWNLOAD PROJECT INFO: http://bit.ly/2KFmFgr

STANDARDS

LANGUAGE ARTS

LAFS.2.L.1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

LAFS.2.L.1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

LAFS.2.L.2.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.

LAFS.2.L.3.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe thoughts and ideas.

LAFS.2.W.2.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

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"If I had to evaluate Alexa's performance, she would definitely be Highly Effective!"

STUDENTS

Twenty 2nd grade students, ranging in ESOL levels from 1 to 4 (95% of the class), participated in this project. The project was implemented within the students' Language Arts/Reading and Math time. The class uses Alexa every day whether it is in small group or whole group settings. This project can be adapted for students from K-12th grade.

MATERIALS & RESOURCES

Materials needed are Amazon Echo Plus, a power source, and a WIFI connection. Depending on classroom setting, size, and student needs, teachers can use several Echo Dots in their small group centers. The closest device to the person asking the question is the device that answers. This means several devices can be running at the same time without interrupting the other small group centers. Many resources are available to help teachers use Alexa in the classroom. Printable references are listed in the project's Curriculum Packet.

ABOUT THE TEACHER

Teaching for 13 years, Zeny Ulloa has a post graduate Education Specialist certification from NOVA Southeastern University and has been awarded numerous grants from The Education Fund, Pets in The Classroom, and 4-H. In 2004, her article, "Behavior Management for the 21st Century Teacher" was published by the FLDOE. She currently serves as the Designated UTD Steward for her school and as the school's Dade Partner Liaison.

CONTACT INFORMATION

ILEEN MARTIN

SCHOOL: Southwood Middle School

PRINCIPAL: Raul Garcia

EMAIL: i-martin@dadeschools.net

PHONE: 305.251.536

DOWNLOAD PROJECT INFO: http://bit.ly/2M44VRi

Darth Vader Meets Macbeth:

A 3-D Tragic Hero's Journey

A modern movie classic combined with timeless work of literature serves as a life lesson for students

Tired of hearing students complain about reading Shakespeare? Then silence those groans with a mash-up lesson pitting two classic heavyweights together: Shakespeare's Macbeth and Star Wars' Darth Vader! Through interactive PowerPoint presentations, including a game of Jeopardy, students first learn about Joseph Campbell's Hero's Journey and Archetypes. Next, students watch the Star Wars Episode II movie (rated PG) with guided questions and a chart to help them apply and interpret Campbell's concepts. A 3-D hanger project follows in which students display Campbell's concepts as they apply to the tragic hero, Anakin Skywalker. The other side of the hanger is completed after a brief introduction to the legendary literary behemoth, William Shakespeare, and his play Macbeth, and the title character's hero's journey is displayed in an eye-catching, creative way. The result is a 3-D hanger project that visually compares and contrasts the tragic hero's journey of two of the literary and film world's most infamous characters: Macbeth and Darth Vader!

> *"Shakespearean drama meets futuristic sci-fi to create an unforgettable lesson!"*

STUDENTS

Five classes of 8th grade gifted language arts students participated in this project for two months, for approximately 55 minutes per day. The 3-D hanger project can be adapted to compare and contrast different concepts, such as the classic story of The Three Little Pigs vs. a version told from the wolf's perspective, displaying the difference/similarities in character roles and plot on either side of the hanger. The project can also be adapted for an historical event from two different perspectives or even in math, examining the qualities of 2-D shapes vs. 3-D shapes.

MATERIALS & RESOURCES

Materials include audio-book copies of Macbeth and Promethean-type board to display the PowerPoint lessons, Jeopardy game, and to show the Star Wars movie; hangers and arts and crafts materials are needed for creating the 3-D hanger project. Resources may include a Media Center. Another resource is the Ocean Bank Center for Educational Supplies warehouse, where the teacher can make an appointment to visit and receive free art supplies.

ABOUT THE TEACHER

Ileen Martin has taught 6th-8th grade English language arts for 12 years, from Intensive to Gifted levels, in the public-school system. She is Nationally Board Certified in ELA Early Adolescence as well as being Gifted Certified. Ms. Martin has a Master's degree in English Education from Florida International University, and a Bachelor of Science degree from the University of Miami. She has used this project for two years.

STANDARDS

LANGUAGE ARTS

LAFS.6-8.SL.2.5: Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

LAFS.6-8.RL.1.3: Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.

LAFS.6-8.RL.2.5: Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.

VISUAL ARTS

VA.6-8.F.1.1: Use non-traditional thinking and various techniques to create two-, three-, and/or four-dimensional artworks.

VA.6-8.F.1.4: Use technology skills to create an imaginative and unique work of art.

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Get on the Ball!

Innovative seating arrangements spark increased reading scores and positive behaviors for students

Students have a ball – literally, with this highly successful learning apparatus that challenges their balance skills all while sitting in front of their computer or at their desk. This type of flexible seating replaces traditional seating arrangements with nontraditional arrangements, such as balance balls, wobble chairs, peanut balls, or balance discs. It allows students the freedom to wobble, rock, bounce, lean, or stand. By incorporating this different seating arrangement strategy of using a balance ball or another apparatus, students' concentration, attendance, and behavior have improved, and they look forward to coming to school.

More importantly, instructional usage and passing rates on I-Ready programs have increased and for second language learners and students with speech impairments, their pronunciations of words have improved. The balance balls also improve visual skills for better focusing, tracking, and scanning which, in turn, improves literacy skills. Because of this out-of-the-box learning approach, students are afforded the opportunity to become better readers and better students.

CONTACT INFORMATION

JACQUELINE GIL-ABARZUA

SCHOOL: Biscayne Gardens Elementary

PRINCIPAL: Deborah Riera

EMAIL: msgilK@dadeschools.net

PHONE: 305.681.5721

DOWNLOAD PROJECT INFO: http://bit.ly/2OU53AP

STANDARDS

LANGUAGE ARTS

LAFS.1.SL.1.1 Participate in a collaborative conversation with diverse partners about grade 1 topics and texts with peers

LAFS.1.L.1.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

LAFS.1.RF.2.2.d Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

LAFS.1.RF.3.3.e Decode two-syllable words following basic patterns by breaking the words into syllables.

LAFS.1.L.1.2.d Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.

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> *"My students have become better readers, their handwriting skills have improved, and they are motivated to attend school."*

STUDENTS

Fifteen 1st grade students participated in this project, utilizing a variety of seating arrangements throughout the day. It can be adapted to any grade level and be used for whole group activities as well as small group activities. Equipment used may vary depending on class size and age.

MATERIALS & RESOURCES

To begin this project, classroom rules need to be discussed with students as classroom management is key. A letter should be sent home, describing the new arrangement. Balance balls, beach chairs, Wiggle chairs, chair cushions, and stools are just a few of the types of equipment used for flexible seating.

ABOUT THE TEACHER

Jacqueline Gil-Abarzua has been teaching for 20 years in grades K-5. She has taught subject areas ranging from core curriculum to Spanish and has been a mentor to several student teachers. This project does not require any assistants or additional personnel.

CONTACT INFORMATION

JENNIFER SMITH

SCHOOL: Dante B. Fascell Elementary

PRINCIPAL: Margaret Ferrarone

EMAIL: JLsmith@dadeschools.net

PHONE: 305.910.8293

DOWNLOAD PROJECT INFO: http://bit.ly/2nqHy5Y

Literacy in a Pot

Incorporating food into literacy tasks encourages students to become accomplished readers

Want to 'spice' up reading lessons in your classroom? One of the best ways is to give your students a 'taste' of something different — incorporate food into reading instruction. To begin this task, novels are chosen that give students complex text and the resources for a good, engaging read. Then, the theme or an activity within that text is paired with snacks or meals that the teacher and students create in class. For example, *Mr. Popper's Penguins* is one novel that students can really sink their teeth into by making penguin pancakes, formed with a metal cookie cutter on a griddle, right in the classroom. Not only will students be engaged, but class work will become more productive and meaningful, and test scores in both weekly assessments and diagnostic achievement in reading will rise through the roof.

> *"I have seen a direct connection between the project and students' reading and writing grades."*

STUDENTS

Twenty 2nd grade Title I students participated in this project. By changing the complexity of the text and the skill level of the cooking, this project can be adapted from Pre-K to high school level.

MATERIALS & RESOURCES

Supplies needed for the project are 20 copies of *Mr. Popper's Penguins*, Popper's Penguins Packet with Recipes, and the following items for each recipe:
Penguin Pancakes: electric griddle, microwave, refrigerator, pancake mix, oil, water, metal penguin cookie cutter, timer, knife, and spatula
Frozen Penguins: bananas, chocolate chips, white and orange M&Ms, and small braided pretzels
Frozen Strawberry Smoothies: Blender, ice, vanilla frozen yogurt, fresh strawberries, knife, and small cups

Resources include watching the movie, "Mr. Popper's Penguins," and a possible visit to SeaWorld Orlando to see real penguins and other amazing sea life.

ABOUT THE TEACHER

Jennifer Smith has been teaching for ten years, seven as an instructional coach at Title I schools in Science and Literacy. She enjoys helping teachers and students and is currently a second grade teacher and the Reading Liaison for her school. She has received four grants from The Education Fund for Literacy and STEM projects.

STANDARDS

LANGUAGE ARTS
LAFS.2.RL.1.1 Ask questions: who, what, when where, why and how to understand key details in a text.

LAFS.2.R.F.4.4.b Read with sufficient accuracy and fluency to support comprehension.

LAFS.2.SL.1.1 Collaborative Conversations

LAFS.2.SL.1.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

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The Readers' Café

A cozy atmosphere transforms students' attitudes and performances toward reading

Designed to mimic a café's cozy atmosphere, complete with a mini dining table decorated with place settings, tea cups and saucers, artificial candles, pillows, and ambiance lighting, The Readers' Café provides a creative space for students to learn reading skills in a relaxing, appealing environment. Themes, such as Green Tea Fridays, allow scholars to participate in a relay race where they are given the chance to review all the concepts and skills they have covered that week by running through the list and passing it on to another student. Much like Green Tea, the activity serves as a refresher. During Tea Time, students master annotation, a skill that is essential in Reading. There are café stations throughout the room, each featuring a different text excerpt for students to analyze and annotate. Since the advent of the Readers' Café, scholars have approached reading with a more positive outlook and feel that reading is intriguing and relatable. Scholars comprehend the material and test better than their peers because exam questions correspond with the activities introduced in the café.

CONTACT INFORMATION

WILLECIA STUBBS

SCHOOL: The SEED School of Miami

HEAD OF SCHOOL: Kara Locke

EMAIL: wstubbs@miami.seedschool.org

PHONE: 855.818.7333

DOWNLOAD PROJECT INFO: http://bit.ly/2OSHnwu

STANDARDS

LANGUAGE ARTS

LAFS.6. RI.1.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

LAFS.6. RI.2.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.

LAFS.6. RI.2.5 Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.

LAFS.7.RI.1.3
Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

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> *"The Readers' Cafe inspires scholars to learn in a multitude of ways."*

STUDENTS

Twenty-five 7th graders and thirty-six 6th graders between the ages of 11-13 participated in the project for fifty minutes each day, 5 days a week. The project can be adapted to other grades and smaller or larger groups.

MATERIALS & RESOURCES

Café environment materials include a variety of books, decorated desks, lamps and chairs, mini chalkboard curtains, flowers and vases, doormat, pillows, candles, plates, tea cups, bookshelf, and a trunk. Teacher Materials include anchor charts and a mini manual of how to implement such activities as: Tea Time, Green Tea Friday, and Café Stations. Resources include a Coffee Shop field trip to introduce students to a coffee lounge environment, supporting students' passion to reading outside the classroom.

ABOUT THE TEACHER

Willecia Stubbs has been an educator for most of her life, beginning at the age of 14. Her professional career as a teacher began in college as an extended day teacher for a K-12 charter school. Currently, Ms. Stubs is an Overnight Resident Advisor for The SEED School of Miami and a proud Reading Teacher. She has earned the Diamond Award, Student Life Employee of the Year Award for the 2016-2017 school year across all three SEED schools, and an Innovator grant from The Education Fund for the 2017-2018 school year.

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Visit one of TD Bank's 30 Miami-Dade locations or visit **tdbank.com/financialeducation**

TD Bank Youth Financial Literacy

Helping students develop strong financial skills in schools, online, and at local TD Bank stores

The TD Bank Financial Education Program was created and implemented to help children develop strong financial skills, in school and online. Our trained bank instructors present in a fun and interactive way. Lessons are available for grades K–12 and topics range from an introduction to money and saving, planning a budget, to understanding what credit is and how important it is to maintain good credit. The curriculum for each lesson meets the National Standards for K-12 Personal Finance. Programs are flexible, can adjust to fit your class schedule and takes only one hour in class or can be spread out to include multiple lessons over the course of several days.

TD Bank also offers students an opportunity to go behind the scenes and see how a bank operates with the Junior Banker Store Tour. Designed for first through fifth grades, students get to step inside the vault, meet the tellers, and learn how the ATM works.

> *"Lessons are available for grades K–12 and topics range from an introduction to money and saving, planning a budget, to understanding what credit is and how important it is to maintain good credit."*

STUDENTS

Lessons for grades K-12.

MATERIALS & RESOURCES

TD Bank Finance 101 Website
The TD Bank Finance 101 website provides 24/7 access to articles, tips, and resources. Topics include budgeting basics, how to get out of debt, and tips to building a great credit score.

TD Bank Instructors
TD Bank has trained bank instructors available to visit classrooms to teach their financial education lessons.

Junior Banker Store Tour
Students go on an exciting adventure as they tour a local TD Bank store. Students get to step inside the vault, meet the tellers, and learn how the ATM works.

STANDARDS

MATHEMATICS

MAFS.K12.MP.1.1: Make sense of problems and persevere in solving them.

MAFS.K12.MP.3.1: Construct viable arguments and critique the reasoning of others.

SOCIAL STUDIES

SS.4.FL.3.1: Identify ways that income is saved, spent on goods and services, or used to pay taxes.

SS.4.FL.3.3: Identify ways that people can choose to save money in many places – for example, at home in a piggy bank or at a commercial bank, credit union or savings and loan.

SS.4.FL.3.5: Explain that when people deposit money into a bank (or other financial institution), the bank may pay them interest.

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Financial Algebra:
Just a Few Keystrokes Away

Making the connection between math and everyday applications for students

So many students see little or no application of algebra in their everyday lives. This Financial Algebra course bridges that gap, giving students a reason to learn and use the formulas integrated in banking and other areas of financial literacy.

In one project based on employment and preparing a budget, students begin by completing a dream job questionnaire that asks questions about researching their dream job, the outlook for employment, beginning salary, and qualifications for employment. After completing the questionnaire, students create a budget from the template provided. This budget breaks down the salary and expenses for each month throughout the year. After completing the percentages allocated for each expense, the students break down these expenses even further. Using a scientific calculator, students then calculate yearly and monthly expenses and compare them to yearly and monthly income. At the end of the course, students come away from the projects with financial literacy skills necessary to enter the workforce as adults.

CONTACT INFORMATION

RICHARD BOYD

SCHOOL: Dorothy M. Wallace/COPE Center South

PRINCIPAL: Tammy Edouard

EMAIL: riboyd@dadeschools.net

PHONE: 305.233.1044

DOWNLOAD PROJECT INFO: http://bit.ly/2nWoz3t

STANDARDS

CAREER & TECHNICAL EDUCATION

CTE-GEN.68.GENRL.09.26 Demonstrating Computer Literacy.

CTE-HS.68.GENRL.08.04 Develop a plan for resource management (e.g. develop a plan for managing a budget).

CTE-FIN.68.BUSFIN.04.01 Identify important financial data components found in the financial section of a daily newspaper.

SOCIAL STUDIES

SS.8.FL.5.4 Explain that the price of a financial asset is determined by the interaction of buyers and sellers in a financial market.

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> *"Students learn and use algebraic formulas integrated into banking and other areas of financial literacy."*

STUDENTS

In lieu of Algebra 2, 11th grade students were offered Financial Algebra for those who had successfully passed Algebra 1 and Geometry. The number of students fluctuated between 12 and 15, but the projects can be adapted by teachers at schools with a higher population.

MATERIALS & RESOURCES

Materials include a Promethean board if one is available and a TI-84 calculator or some other type of scientific calculator. Lesson plans and formative assessments can be provided. Resources may include financial institutions as they are very willing to provide guest speakers since students represent potential customers.

ABOUT THE TEACHER

Richard Boyd has been the recipient of several grants from The Education Fund and DonorsChoose. He has also presented workshops at the Idea EXPO for the past two years where attendees have commented that the lesson was highly hands-on and easily integrated in their curriculum.

CONTACT INFORMATION

ILIANA HERRERA

SCHOOL: South Dade Middle School

PRINCIPAL: Fabiola Izagirre

EMAIL: iherrera80@dadeschools.net

PHONE: 786.449.6767

DOWNLOAD PROJECT INFO: educationfund.org

iPlay:

Using YouTube for Financial Literacy Concept Connections in Language Arts

Lights, camera, action! Exemplifying differentiated instruction at its best, this project challenges students to perform and record self-selected rewritten scenes from the chapter book, *The Last Egret-The Adventures of Charlie Pierce*. Students choose scenes that showcase examples of concepts learned from financial literacy lessons. Working in teams with specific roles, they create videos that are uploaded to their class YouTube channel. Students provide commentary on financial literacy concept connections as well as their project testimonials. The unit consists of (1) stand-alone Financial Literacy lessons created by the M-DCPS Department of Social Sciences; (2) novel reading with close reading activities for comprehension and vocabulary development; (3) playwriting and production; (4) Financial Literacy concept connections and video recorded testimonials; and (5) YouTube video editing, uploading, and viewing party. Using these technology and video production processes as tools to connect and translate what is learned from the financial literacy lessons empowers students who have diversified interests and learning styles.

> *"Positive attitudes abound for students eager to share learned financial literacy concepts through YouTube."*

STUDENTS

A total of 45 4th grade students participated during the Language Arts block, five times per week. Student levels ranged between 1-4, 12 of which were ESOL and 6 SPED students (Learning Disabled, Visually Impaired, Traumatic Brain Injury). The project can be easily adapted to student choice when students select how to contribute to the final production of the videos/skits. It can be modified to smaller/larger groups, and simplified or extended, depending on the developmental levels of the students participating.

MATERIALS & RESOURCES

Materials include *The Last Egret* chapter book, The Last Egret Comprehension/Vocabulary Packet, Financial Literacy PowerPoint Lessons from M-DCPS Social Sciences Website, *Financial Content Connection Worksheet, Elements of Drama, Play production team roles, *Play performance rubric, Video production/editing team roles, and *Video team final upload rubric (*= teacher made). Resources include Brain Pop account, Internet access, devices for recording, devices for editing and uploading to internet, Promethean board, chart paper for group planning, stage/space for performing, black/green butcher paper for stage/video backgrounds, construction paper, art supplies, and paper for prop making and set production (costumes and setting).

ABOUT THE TEACHER

Iliana Herrera graduated in 2006 from FIU where she obtained her degree in Elementary Education and later earned a second degree in Reading Education in 2009. She has been teaching for 13 years and has been working with this project for three years.

STANDARDS

SOCIAL STUDIES

SS.4.FL.1.4 People can earn interest income from letting other people borrow their money. Explain why banks and financial institutions pay people interest when they deposit their money at those institutions.

SS.4.FL.2.1 Explain that economic wants are desires that can be satisfied by consuming a good, a service, or a leisure activity.

SS.4.FL.4.2 Identify instances when people use credit, that they receive something of value now and agree to repay the lender over time, or at some date in the future, with interest.

LANGUAGE ARTS

LAFS.4.RL.3.7 Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

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Once Upon a Time in Economics

Students pass on their knowledge in economic concepts to younger generations

Fairy tales become true to life in this culminating assignment for an "Introduction to Economics" unit. After receiving instruction on the study of economics, and how everyday decisions at a micro and macro level involve economic concepts, high school students show their mastery of these concepts by means of analysis of a fairy tale - through an economic lens. Once students analyze their selected story, they reproduce the story for an elementary school student audience. For example, if students are using *Goldilocks and the Three Bears*, they create a book, highlight the corresponding/related economic concepts, and include a student-created glossary to help the younger readers better understand those concepts. As in this project, there can be coordination with the local feeder pattern elementary school for the older students to read their book and talk to groups of younger students about their assigned economic concepts. Sharing in this manner helps older students to retain the concepts and gives them more confidence in their quest to become a fiscally responsible adult in their community.

CONTACT INFORMATION

DANIEL VINAT

SCHOOL: Felix Varela Senior High

PRINCIPAL: Nery Fins

EMAIL: dvinat@dadeschools.net

PHONE: 305.752.7900

DOWNLOAD PROJECT INFO: http://bit.ly/2OWvXYO

STANDARDS

SOCIAL STUDIES

SS.912.E.1.1 Identify the factors of production and why they are necessary for the production of goods and services.

SS.912.E.1.3 Compare how the various economic systems and answer the questions: (1) What to produce? (2) How to produce?; and (3) For whom to produce?

SS.912.E.2.1: Identify and explain broad economic goals.

LANGUAGE ARTS

LAFS.1112.RH1.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

LAFS.1112.RH.1.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

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School District Education Foundation Matching Grant Progr

> *"The earlier children are exposed to important economic concepts, the financially stable they will be as adults."*

STUDENTS

A total of thirty-one 12th grade students in a regular economics class participated in this activity. Students with a variety of achievement levels, along with ESE and ESOL students, contributed in varying aspects of the project. It is easily adaptable to different classroom settings. Students can work on their fairy tale book individually or in large groups.

MATERIALS & RESOURCES

Basic materials include the students' economics notes and textbook to refer to, pre-made blank books, and colored pencils/markers/crayons. Teacher prepared materials include copies of students' fairy tales, Foundation of Economics Pre- and Post-Test, PowerPoints, Economics through Fairy Tales handout, and story analysis handout. Resources include a possible trip to an elementary school and online videos on financial education.

ABOUT THE TEACHER

Daniel Vinat has been a teacher since 2003. In the past 15 years, he has earned numerous awards such as the Foundation for New Education Initiatives 2017-18, Univision's Un Maestro Especial Award 2018, and Governors Award given by the Florida Council on Economic Education 2010 and 2013. This was the first year he developed and used the project in his classroom. No assistance was needed from volunteers or paraprofessionals.

CONTACT INFORMATION

LA-SHANDA WEST, ED.S.

SCHOOL: Cutler Bay Senior High

PRINCIPAL: Lucas De La Torre

EMAIL: lashandawest@dadeschools.net

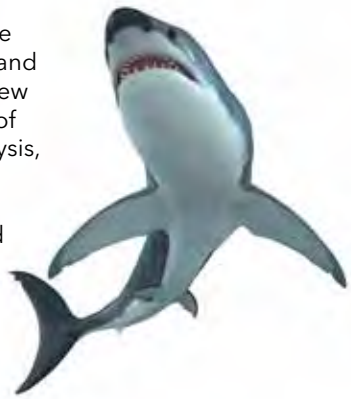
PHONE: 305.253.1581

DOWNLOAD PROJECT INFO: http://bit.ly/2OVqod2

TSI Tanked! Challenge

Assuming the role of entrepreneurs, students are inspired by the ABC television show, "Shark Tank"

Watch business and financial literacy concepts come alive as students face the Tiger Shark Investment (TSI) Tanked Challenge. Beware, you don't want to walk the plank if your project tanks! Based on the ABC TV show "Shark Tank," student entrepreneurs present their ideas/inventions to shark investors to seek funding in exchange for a piece of equity in the company/project. In their quest to win the allocated shark investment, i.e. "the deal" to produce and market their product, for example Cutler Bay's iPrep new school clothing line, students learn valuable life skills of research and development, product design, cost analysis, finance and accounting, branding, budgeting, digital-designing, entrepreneurship, marketing, and public speaking skills. Prior to this activity, students displayed limited interest in pursuing a career in business. Their mindset has changed! Now students want to own and operate a business.



> *"The students' academic performance and attitute were positively affected as measured by assessments."*

STUDENTS

This project was implemented with 74 iPrep Academy students in grades 9-12, with achievement levels 2-5 on the Florida Standards Assessments (FSA) Math. Teachers can adapt the project for grades 5 through 12 in small and large classes, and social studies and math courses. Their schedule was a 3 by 3 block with two-hour class time. Teachers can adjust the time spent on each activity to suit their class time and the subjects they teach.

MATERIALS & RESOURCES

Set-up materials include SMART Board/Promethean Board with a projector; devices (Tablets, MacBook Air, Desk Top Computers); Internet; speakers for sound; Microsoft Excel or similar program for accounting. Resources include viewing a clip of Season 9 Episode 2 of *Shark Tank* as an introduction, a field trip to the Junior Achievement stock market simulation at the host institution; guest speakers; PTSA or another school-related club to support the project by fundraising.

ABOUT THE TEACHER

Since 2001, La-Shanda West has taught for Miami-Dade County Public Schools. Her honors include: Florida Council for the Social Studies Beginning Teacher of the Year (2002), Miami-Dade Council for the Social Studies Teacher of the Year (2005), Teacher Leader Program Miami (2012) and IMPACT II Teacher Leadership (2015). She presented "Easy As ABC: Using Financial Literacy to Teach Social Studies" at the Miami-Dade Council for the Social Studies Annual Conference (2013), iLearn Civics (2013) and Bank It! (2017) at the Ideas with IMPACT EXPO. She is a recipient of the National Celebrity Educator Award (2016) and South Florida Legacy Magazine Top Educator (2016).

STANDARDS

SOCIAL STUDIES
SS.4.FL.1.7 Entrepreneurs are risk takers in which they invest time and monies in creating a new business for product distribution.

VISUAL ARTS
VA.912.F.3.8 in which the students will combine digital art and design skills, with algebraic calculation to develop a quality product at an efficient cost. In correlation to the Florida Standards, students will create a business for the purpose of marketing, branding and raising monies to fund school-related activities such as field trips and in-house events.

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CONTACT INFORMATION

SHAWN WARING

SCHOOL: South Dade Senior High

PRINCIPAL: Juan De Armas

EMAIL: swaring@dadeschools.net

PHONE: 305.247.4244

DOWNLOAD PROJECT INFO: http://bit.ly/2OWk1WN

Building Robots...
and More (SD Robo Tech)

An afterschool Robotics Club promotes success in academics and social skills

The Robotics Club at South Dade Senior High School is different than most robotics clubs. In an effort to address academic and social struggles that often plague students who have difficulties focusing on their studies and have real awkwardness speaking with unfamiliar people they meet, this Robotics Club focuses its aim at building reading comprehension and social connections, while at the same time, building VEX Robots geared to complete a specific task while in competition. Initially, students introduce themselves and talk about their experiences with technology and engineering. Put into small groups to build their robot, they exercise social skills, reading comprehension, and engineering aptitude. As time progresses, they become more comfortable working together and reaching out to other groups for advice. Students who have been in the club for more than a year often take on a leadership role, helping other groups through the design and coding process.

> *"Students realize amazing possibilities through their experience in robotics and engineering."*

STUDENTS

Approximately 30 students from 9th-12th grade participated in the Robotics Club, meeting twice a week. This program can be adapted to accommodate groups of students with higher or lower achievement by adjusting the amount of instructor and peer support that is given. Students with more experience can work with beginning groups and the teacher can also help them achieve specific tasks and point them in the right direction to research answers to problems.

MATERIALS & RESOURCES

Materials needed are: 2 Vex Robots and ramps, towers, or arenas for the students to practice driving and coding their robots during competition. Resources include: engineering-related magazines; YouTube to research ideas about robot design and programming; VEX curriculum; robotics workshops; and local home centers and construction companies for leftover materials to create things for the robots to interact with.

ABOUT THE TEACHER

Shawn Waring has been a teacher for 19 years after earning a Master's Degree in Exceptional Student Education. He has taught Algebra and Geometry to students with disabilities and has taught a Materials and Processes (Woodshop) course. Currently, Mr. Waring teaches Building Trades and is the Robotics Club sponsor for his school. His students have participated in the Vex Robotics Competition, and last year they won first place in the Alliance Team Competition.

STANDARDS

APPLIED ENGINEERING TECHNOLOGY I

02.0 Demonstrate an understanding of the attributes of design and the engineering design process.

04.0 Demonstrate skill in technical sketching and drawing as it relates to engineering design.

05.0 Successfully work as a member of a team.

19.0 Apply fundamental computer programming concepts. Perform an engineering project requiring design or re-design of an engineering system (e.g. mechanical, fluid, thermal, electrical, and electronic systems)

30.0 Demonstrate an understanding of design and development of solutions involving mechanical engineering, their environments, and their associated design constraints.

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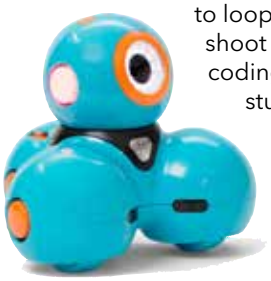
Dashing Through STEAM

Young students learn how to code and use math and science skills to solve real-world problems

Students and teachers in kindergarten through 5th grade love working with Dash. Exposure to the Dash robot eases them into the world of coding and robotics, eliminating the stress that often comes with the preconceived notion that robotics activities are hard. Starting in kindergarten, the students learn sequences to help them complete simple coding activities such as turning on and off lights and getting Dash to move around the room in a particular way. With a good understanding of sequencing, they move on to looping, using code to make Dash dance, talk, and even shoot a basketball into a hoop. Moving up in grade level, the coding becomes more complex as third through fifth grade students use what they learn with Dash to assist them in programming the VEX IQ, which will help them prepare for robotics competitions. For students, these activities make computational thinking and creative problem-solving concrete and tangible with hands-on play and learning with the Dash robot.



CONTACT INFORMATION

MARCELLE FARLEY

SCHOOL: Lake Stevens Elementary

PRINCIPAL: Vanady Daniels

EMAIL: mfarley@dadeschools.net

PHONE: 305.625.6536

DOWNLOAD PROJECT INFO: http://bit.ly/2vy1uIp

STANDARDS

MATHEMATICS

MAFS.K.G.2.4 : Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts and other attributes.

MAFS.K.MD.1.1 : Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

SCIENCE

SC.K2.CS-CP.2.1: Define a computer program as a set of commands created by people to do something.

SC.35.CS-CP.2 : Perform keyboarding skills for communication and the input of data and information.

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> *"With a mix of robust hardware and easy-to-use software, students from K-5 can develop their critical thinking strategies while building true collaboration skills."*

STUDENTS

This project involved approximately 250 K-5 students. Teachers were trained on how to use the materials. A Dash robotics kit was available in Math/Science classrooms at every grade level. The Math Coach visited each classroom once each week, working with a small group of students at a time until all students participated. Teachers used the kits on other days as an incentive for students who had completed their work.

MATERIALS & RESOURCES

Materials for this project include a Dash Robot Launcher accessory, a Wonder Workshop Learn to Code Curriculum Pack, and handouts of activities. Resources needed are the Internet and the Code.org website (www.code.org).

ABOUT THE TEACHER

In addition to her title as Math Coach for this project, Marcelle Farley has been a teacher for 23 years, working with students from Pre-K to 8th grade science. She has been National Board certified in Middle Child Generalist since 2002 and has an Education Specialist degree in Elementary Education. Ms. Farley has received several grants from The Education Fund and is grateful that the organization supports teachers in their efforts to bring innovation and creativity to students.

CONTACT INFORMATION

MARCO DIEZ

SCHOOL: Howard D. McMillan Middle School

PRINCIPAL: Hilca Thomas

EMAIL: marcodiez@dadeschools.net

PHONE: 305. 385.6877

DOWNLOAD PROJECT INFO: http://bit.ly/2nqfwXW

The Power of Math in LEGO Robotics

Robotics help students understand how to apply mathmatcial calculations to real-life situations

There is more to LEGOs than just blocks – there are robots, too. With a LEGO Robot, the question of, "How are we supposed to use this math in real-life?" is answered. In this project, students learn how to apply mathematical calculations to make the LEGO Robot move forward, backward, and turn to the right or to the left. For example, students calculate the number of rotations the wheel of the robot needs to move so the robot can travel a certain distance forward. Then, calculate the number of rotations the wheel of the robot needs to move in order to turn to the right, and finally, calculate the number of rotations the wheel needs to move to travel a certain distance backward. As students use the LEGO Robot more and more, they begin to appreciate the power of using mathematics. It provides the perfect example to prove to them that mathematics is everywhere.

"This project has increased students' confidence when they perform mathmatical calculations."

STUDENTS

Approximately 120 7th grade students met for the Lego Robotics class this year, for nearly an hour each day and for only one semester. This project could also be adapted to elementary students and with a larger group of students.

MATERIALS & RESOURCES

Materials include a Promethean Board or white board to explore and explain the mathematical calculations to students, a LEGO Robot for demonstration purposes, a table, the floor, and electrical tape (to create a maze for the robot to navigate). A PowerPoint is available for teachers with step by step instructions on how to complete the project. Throughout the years, Mr. Diez's school has purchased LEGO Robot Kits to be used with students. Each pair of students has a kit to use in his class.

ABOUT THE TEACHER

Marco Diez has been teaching LEGO Robotics for the past five years. Each year, he has assembled a team to compete at local First LEGO League tournaments. This school year, his school hosted the tournament and his team won first place. For the last two years, his teams have qualified to move on to Regional competitions. His teams have also participated and finished in first place at the Youth Fair competition for two years in a row. Mr. Diez received the Teacher of the Year Award during the 2014- 2015 school-year.

STANDARDS

MATHEMATICS

MAFS.K12.MP.1.1 Make sense of problems and persevere in solving them.

MAFS.K12.MP.4.1 Model with mathematics.

MAFS.K12.MP.5.1 Use appropriate tools strategically. Mathematically proficient students consider the available tools when solving a mathematical problem

MAFS.K12.MP.8.1 Look for and express regularity in repeated reasoning. Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts.

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Interwoven Fibers' Optics

Students put down their phones and devote their attention to creating a beautiful weaving

Weaving, as a method of textile production, was invented close to 27,000 years ago, making it one of the oldest forms of human technology. Textile art has undergone a renaissance over the past century as artists have pushed the boundaries of what can be considered a textile as well as how a textile can be considered art. Before students begin working with their hands, they learn about the early history of weaving and how the Industrial Revolution led the way to create the American textile industry of today. Quickly, history lessons move on to weaving lessons. Students learn how to make looms out of discarded materials such as hub caps for larger looms or cardboard for smaller individual looms. Various techniques such as tabby weave, Egyptian knot, and inserted weft are modeled for students in their effort to be creative with their use of materials and their application of colors and textures. Students come away from this project with a sense of accomplishment and maturity for making something tangible and beautiful from pieces of strings and fabrics.

CONTACT INFORMATION

LOURDES FULLER

SCHOOL: Shenandoah Middle Museum Magnet School

PRINCIPAL: Bianca Calzadilla

EMAIL: lfuller@dadeschools.net

PHONE: 305.856.8300

DOWNLOAD PROJECT INFO: http://bit.ly/2MxtZfN

STANDARDS

VISUAL ARTS

VA.68.F.1.1: Use non-traditional thinking and various techniques to create two-dimensional artworks.

VA.68.F.3.4: Follow directions and complete art tasks in a timely manner to show development of 21st-century skills.

VA.68.C.2.3: Examine artworks to form ideas and criteria by which to judge/assess and inspire personal works and artistic growth.

VA. 68.C.3.2: Examine and compare the qualities of artworks and utilitarian objects to determine their aesthetic significance.

VA.68.H.2.1: Describe how previous cultural trends have led to the development of new art styles.

VA.68.H.3.3: Create imaginative works to include background knowledge or information from other subjects.

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> *"My students were absolutely engaged and felt a sense of pride and accomplishment in learning to weave."*

STUDENTS

In this project, as many as 40 students can participate and weave simultaneously. It can be done with all grades of students (elementary – high school), beginning with basic cardboard looms for younger students and moving up to larger, sturdier looms, such as hubcaps, for older students.

MATERIALS & RESOURCES

Materials include cardboard boxes for the yarn, ribbons, and fabric; plastic containers for buttons and beads; and a good set of scissors. Making looms out of cardboard can be demonstrated. Technique handouts that include instructions and visuals for Tabby Weave, Egyptian Knot, Inserted Weft, Supplementary Weft, Rya Shag, Interlocking, Dovetail and Slits can be provided. Resources: Weavings are a central part of many cultures so teachers can reference culturally diverse Navajo weavings, Kente cloth, European Medieval tapestries, Honduras emerging textiles, and Zapotec Oaxaca weavings. The artisans living there create a world of colors, textures, and patterns from raw threads and natural dyes. Parents and grandparents invariably appreciate and support the introduction of this art medium to their children. They will come to the classroom with donations and samples of textile art.

ABOUT THE TEACHER

Lourdes Fuller is a veteran art teacher with over 20 years of experience, during most of which she taught weaving and textile art to her students. For her National Board Certification in 2001, weaving was one of her entries and the only entry that scored a perfect 4.0. She has been Teacher of the Year at her school twice and once was a region finalist. In 2015, Ms. Fuller had the great honor of being Middle School Art Teacher of the Year for the State of Florida.

CONTACT INFORMATION

ERIC FIRESTONE

SCHOOL: South Miami Middle Community School

PRINCIPAL: Fabiola Izaguirre

EMAIL: choironfire@dadeschools.net

PHONE: 305. 661.3481

DOWNLOAD PROJECT INFO: http://bit.ly/2OrqF6B

Getting Forked Up:

Taking a Bite Out of the Major Scale!

Choral students improve their musciality while deepening their understanding of how it relates to math and science

By exploring sound waves, the mathematical relationships of the scale, and vocal technique, choral students develop a deeper understanding of music and the world around them. First, the basic concepts of waves and sound waves are introduced, such as periods, cycles, visual representations, and resonance. Then, direct correlations are made to singing, basic functions of the vocal folds, how the folds vibrate using Bernoulli's principle, and resonance techniques. When students know that an "A" is equal to 440 htz and a "C" is equal to 423.2 htz, students hypothesize the remainder of the scale and compare answers to the actual scale. After listening and "tuning" to the forks, students then begin applying the new knowledge of sound waves, resonance, Bernoulli's principle, and intervals to determine starting pitches in choral songs and to sing songs with appropriate stylistic resonance.

> *"The more empowered a student feels in any given subject area, the more inspired and engaged the student becomes."*

STUDENTS

The project is written for a standard chorus class, and can vary in terms of voicing as the concepts covered are basic and gender neutral. For the implementation of the project, only a large class of 58 students participated.

MATERIALS & RESOURCES

For this project you will need: A basic understanding of sound waves (period, frequency, htz, resonance), intervals, an 8-tone pitch fork scale, a singular pitch (I chose "A") pitch fork per student. Worksheets relating to frequencies, a song for teaching intervals will be provided. Resources include access to musictheory.net

ABOUT THE TEACHER

Eric Firestone attended the University of Miami Frost School of Music, where he earned a Bachelor of Music with a major in Music Education and a minor in Music Theory and Composition. Having taught for 12 years, he has received Rookie Teacher of the Year, was chosen by the Arsht Center to develop STEAM lesson plans for 7th grade via the Kitty Hawk Project, has presented at the Florida Music Educator's Conference, and has received an Innovator Grant from The Education Fund. His extensive vocal career has granted him the opportunities to share the stage with many other great musicians such as Dr. Jo-Michael Scheibe, Itzhak Perlman, Joshua Habermann, Karen Kennedy, Moses Hogan, and Andrea Bocelli.

STANDARDS

SCIENCE

SC.912.P.12.2 Analyze the motion of an object in terms of its position, velocity, and acceleration as functions of time.

SC.912.P.12.3 Interpret and apply Newton's three laws of motion.

SC.912.N.1.7 Recognize the role of creativity in constructing scientific questions, methods and correlations.

MATHEMATICS

MA.912.S.1.2 Determine appropriate and consistent standards of measurement for the data to be collected in a survey or experiment.

MS-PS4-1. Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.

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Passionate Pots

Students get the feel of ancient civilizations as earthen clay oozes between their fingers

Feel-good art takes on a new expression for kinesthetic learners in this project where students learn about the origin of earthen clay and how it has been used by civilizations for centuries. Taking a small lump of clay from a rectangular form and pressing, pulling, and pinching it into a shape using their bare hands and some clay tools, students create their own beautiful and useful pinch pot. Some examples of pinch pots are bowls, cups, saucers, and pitchers. Once students' pinch pot molds are completed, they dry, and are fired in a kiln. If students choose, they can decorate their pot with paint or glaze before it is fired in the kiln a second time. Students come away from this lesson with more self-respect and self-esteem as well as appreciation for art and science.

CONTACT INFORMATION

MICHAEL FLAUM

SCHOOL: Jack D. Gordon Elementary

PRINCIPAL: Maileen Ferrer

EMAIL: mflaum@dadeschools.net

PHONE: 305.234.4805

DOWNLOAD PROJECT INFO: http://bit.ly/2nlii0K

STANDARDS

VISUAL ARTS

VA.5.H.1 Through study in the Arts, the learner will honor others and the worlds in which they live (d).

VA.5.H.3 Connections amongst the Arts and other disciplines strengthen the learners ability to transfer skills to and from other fields.

VA.5.51 The Arts are inherently experiential and engage learners in the process of creating and interpreting and responding to Art.

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> *"There is nothing more Zen and meditative than listening to yoga-inspired music and holding a lump of natural, soft, earthen clay with your own hands."*

STUDENTS

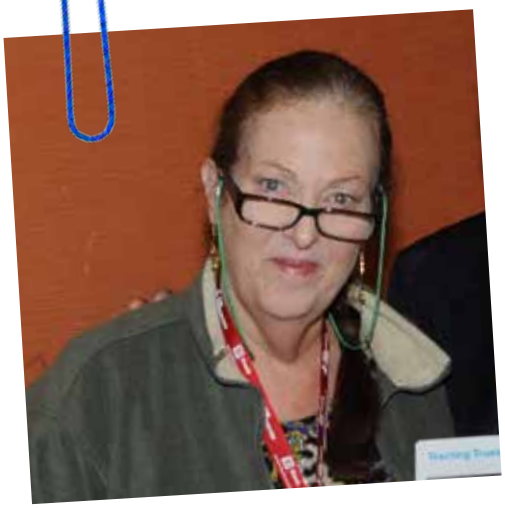
More than 400 second through fifth grade students participated in creating earthen clay pinch pots. It was always the highlight of their day during the project.

MATERIALS & RESOURCES

The following materials can be provided: a booklet demonstrating the origin and history of clay, a variety of lessons to incorporate with it, and a list of alternative materials that teachers may use who do not have access to a kiln, such as air-dry clays and for similar results, oven bake materials that do not require earth clay. Earth clay, though, is the most durable and lasting. Resources include The Ceramics League of Miami to visit for clay ideas and Anhinga Clay Studios, which offers clay-turning classes on the potter's wheel for those who wish to have that experience.

ABOUT THE TEACHER

Michael Flaum has won numerous art awards throughout his 34 year career and has received many grants from The Education Fund and other sources. The project does not require assistance and became the starting point for a spectacular project in The Education Fund's Art of Found Objects Art Exhibition at Ocean Bank this year. Students turned their pinch pots into a "Fish Bowl."



CONTACT INFORMATION

ESTHER STERENTAL

SCHOOL: Coral Reef Senior High

PRINCIPAL: Thomas Ennis

EMAIL: esterental@dadeschools.net

PHONE: 305. 232.2044

DOWNLOAD PROJECT INFO: educationfund.org

Teaching Trunks
On the Holocaust

The Florida Holocaust Museum in St. Petersberg provides free literature-based teaching trunks

The Florida Holocaust Museum provides literature-based teaching trunks to use to meet the Florida Mandate for Holocaust Education. Their dynamic trunk curriculum teaches the lessons of the Holocaust, genocide, and character education with trunks designed to accommodate the needs of one class or a team of teachers.

The trunk materials align with state standards and are appropriate for students at each level. The focus of each trunk is carefully developed to create a spiraling educational approach that builds upon the previous grade level trunk. The first and second grade trunk is a video-based series on respect and tolerance education. All other trunks contain picture books, class sets of literature, curriculum guides CDs, videos/DVDs, poster sets, and resource materials.

The curriculum focuses on integration of subject areas, cooperative learning, multiple intelligences, and an emphasis on reading and writing skills. Themes include:

- *Different and the Same for first and second grade;*
- *Creating Community for third and fourth grade;*
- *Beginning Holocaust Studies for fifth grade;*
- *Investigating Human Behavior for middle school;*
- *Historical Perspectives of the Holocaust for high school.*

Further study is available through specialized trunks:

- *Arts Trunk for elementary students;*
- *Human Rights and Genocide Trunk for middle and senior high students.*

> *"Teaching Trunks ensure that the important lessons of the Holocaust are not forgotten and will be passed from generation to generation."*

ABOUT THE TEACHER

Esther Sterental is a graduate of the Yad Vashem Holocaust Education Teacher Training Program in Jerusalem. In 2012, Ms. Sterental was named the "Florida State Holocaust Education Teacher of the Year" and was one of a selected group of Florida professionals invited to attend the United States Holocaust Memorial Museum's Regional Education Summit.

ADDITIONAL RESOURCES

Dr. Miriam Klein Kassenoff
M-DCPS Education Specialist, Holocaust Education Director, UM Holocaust Studies; Institute Education Chairperson, The Holocaust Memorial
mkassenoff@dadeschools.net or 305.995.1201

Dr. Kassenoff is a child survivor of the Holcoaust having escaped Nazi Europe in 1941. She provides information, lectures, and workshops on Holocaust Education. She co-authored with Dr. Anita Meinbach: Memories of the Night: A Guide to the Holocaust and Studying the Holocaust Through Film and Literature, which are both available as e-books on the internet.

HOW TO RESERVE A TRUNK FREE OF CHARGE

Contact the Florida Holocaust Museum in St. Petersburg directly to reserve a trunk to use in your school or classroom.

For more information, go to flholocaustmuseum.org

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School District Education Foundation Matching Grant Program

Anne Frank and Me

Learning about discrimination and intolerance affords students an authentic learning opportunity to write with a genuine purpose and audience in mind

Anne Frank's legacy withstands time and remains relevant to the generations of today's youth because it provides the human factor, enabling students to forge meaningful connections. After closely reading *The Diary of Anne Frank* (the play), students draw connections to their own lives and make comparisons to the issues of discrimination, intolerance, and violence still affecting our society today. They use writing as a tool in order to address their own hardships and the difficulties they see within their own schools and communities. The project culminates with students creating brief blog entries to one another within the school that reflect on themselves as they share their ideas to confront intolerance and discrimination in today's society. Using blogging as a means to publish student writing promotes collaboration and interaction among peers. It provides students an authentic task, audience, and purpose to write, allowing them to tackle a relevant issue.

CONTACT INFORMATION

JODIE RAY

SCHOOL: Eugenia B. Thomas K-8 Center

PRINCIPAL: Debbie Saumell

EMAIL: jray@dadeschools.net

PHONE: 305.592.7914

DOWNLOAD PROJECT INFO: http://bit.ly/2OkHMqu

STANDARDS

LANGUAGE ARTS

LAFS.K12.W.2.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

LAFS.K12.W.2.6 Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

LAFS.K12.W.3.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

LAFS.K12.W.4.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

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Robert Russell Memorial Foundation

School District Education Foundation Matching Grant Program

> "The Diary of Anne Frank *acts as a springboard to teach about discrimination and intolerance."*

STUDENTS

Multiple classes of 8th grade students participated over a nine-week period in conjunction with the 8th grade ELA Collection textbook and subsequent pacing guides. It is best adapted for middle and high school students with large and/or small groups and used to supplement any Holocaust instruction.

MATERIALS & RESOURCES

Materials include a class set of *The Diary of Anne Frank* (the play) by Frances Goodrich and Albert Hackett; a set of tablets, laptops, and/or desktop computers; and a subscription to Kidblog or another classroom blogging platform. A lesson plan is provided to teach the drama, *The Diary of Anne Frank*, in order to build students' schema and background prior to implementing the project. Websites include The Secret Annex Online, the Anne Frank House, assignments and teacher guide and a speech by Miep Gies. Resources include the school media center, Smart/Promethean board, and Internet. Additional resources such as a field trip to the Holocaust museum, and expert Holocaust guest speaker, would supplement this project but are not necessary for implementation.

ABOUT THE TEACHER

Jodie Ray has taught *The Diary of Anne Frank* for the past two years, but this is the first year she has implemented the blogging aspect with her students. She teaches a diverse population of students, including advanced, inclusion, and regular education.

CONTACT INFORMATION

JACQUELINE TORRES-QUINONES

SCHOOL: South Dade Senior High School

PRINCIPAL: Juan De Armas

EMAIL: j.torresquinones@dadeschools.net

PHONE: 305. 247.4244

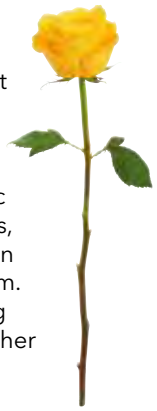
DOWNLOAD PROJECT INFO: http://bit.ly/2vNCb4g

Unraveling the Past

to Create a More Inclusive Future

Delving into historical aspects of the Holocaust, students formulate an understanding of how the Holocaust started

For those who survived the atrocities of the Holocaust through the 1930's and 1940's, the nightmare has been etched into their minds forever. Students in the 21st century need to see these "Holocaust etchings" to understand how historical events prior to 1933 led up to the development of the Holocaust and how hate crimes caused specific groups, particularly European Jews, to be excluded, ostracized, and ignored. Students utilize resources that comprehensively explain how six million Jews lost their lives during World War II. Throughout this project, students are emboldened to learn about the Holocaust, hate crimes, bullying, anti-Semitism events, positive-growth mindset strategies, peaceful resolution outcomes, and transparency in communication through written and creative artistic skills. As a result, students develop various afterschool project clubs, brochures, pamphlets, and posters that support character education awareness, values, community service activities, and multiculturalism. Moreover, students may illustrate or publish their conclusive writing experiences into class motivational journals and share them with other grade levels as an enrichment project.



"This project empowers diverse high school students to learn about the Holocaust, hate crimes, bullying, anti-Semitism, and more."

STUDENTS

High school SPED, ESOL, inclusion, and general education students participated in this project. The project may be taught in groups of 30 or less.

MATERIALS & RESOURCES

Materials include a Holocaust Trunk filled with literature (must be ordered); referenced curriculum "Echoes" must be used to instruct and support the aligned common core standards; supplementary library books; motivational posters; and various novels (see list in Curriculum Packet).

ABOUT THE TEACHER

Jacqueline Torres-Quinones has implemented this project since 2017 and similar projects since 2000. Some of her many accomplishments include: Completed Doctoral Studies in Organizational Leadership, Highly Effective High School Read 180 /Intensive Reading Teacher, University Prep SAT/ACT/PERT Adjunct Professor, and Keynote speaker on Literature Circles at Barry University. She has received grants from United Teachers of Dade, Federation Association of Teachers, Donors Choose, Adopt a Classroom, and The Education Fund.

STANDARDS

CCSS.ELA-LITERACY.RL.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-LITERACY.RL.9-10.2 Determine a theme or central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped by specific details.

CCSS.ELA-LITERACY.RL.9-10.4
Determine the meaning of words and phrases used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone.

CCSS.ELA-LITERACY.RL.9-10.6 Analyze a particular point of view reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.

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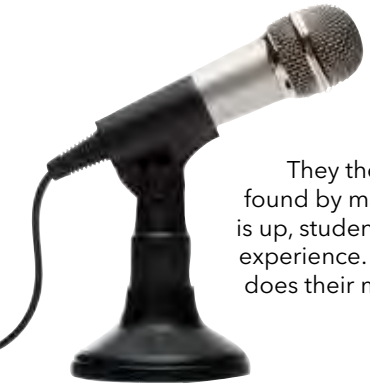
Robert Russell Memorial Foundation

School District Education Foundation Matching Grant Program

The Art of Arguing

Students vocalize their viewpoint on a given topic and become better listeners in the process

Debating is a great way to get reluctant students involved. Many students who appear quiet shine once they can argue about a topic they are passionate about. Vocalizing their viewpoint on a given topic, they become better listeners and stay engaged with the lesson. To prepare, students delve into the resources provided and evaluate what evidence is helpful to their given topic. For instance, in reading the novel *Esperanza Rising,* they analyze whether or not Mama should marry Tio Luis. Hunting through their novels, students find all the relevant details that went in favor or against Mama marrying Tio Luis. They then added their personal insight about the evidence found by making inferences. In most cases, when the debate time is up, students are desperate to continue– a sign that they enjoy the experience. Their self-confidence grows with their knowledge and so does their mastery of multiple Florida standards.



CONTACT INFORMATION

STACY MOGULL

SCHOOL: Aventura City of Excellence School

PRINCIPAL: Debbie Saumell

EMAIL: smogull@aventuracharter.org

PHONE: 305.466.1499

DOWNLOAD PROJECT INFO: http://bit.ly/2M42GgR

STANDARDS

LANGUAGE ARTS

LAFS.K12.W.1.1: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

LAFS.K12.SL.1.1: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

LAFS.K12.SL.1.3: Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

LAFS.K12.SL.2.4: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

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> *"When the debate time is up, students are desperate to continue — a sign that they enjoy the experience."*

STUDENTS

The entire class participated in this activity. It can be done throughout the year and is most appropriate for grades 4 and up. Debates can take place in the Language Arts classroom as well as science, social studies, and even math.

MATERIALS & RESOURCES

Minimal supplies are needed. If the idea is from a novel, personal copies are needed. If the idea is from an article, copies of the article are needed. The debate can be done in the classroom and it may be helpful to set students up where they face the opposing stance. Resources include the internet to locate topics that will engage students. Ideas can also stem from an issue occurring in a novel.

ABOUT THE TEACHER

Stacy Mogull is in her 13th year of teaching. In 2010, she received her Master's in Educational Leadership from the University of South Florida and has been recognized by the state as a Florida High Impact teacher the past two years. Since the transition to Florida Standards, she has incorporated debates into the classroom.

CONTACT INFORMATION

CARMEN MARROQUIN

SCHOOL: Coral Reef Senior High School

PRINCIPAL: Thomas Ennis

EMAIL: cmarroquin@dadeschools.net

PHONE: 305. 232.2044

DOWNLOAD PROJECT INFO: http://bit.ly/2vvuQqS

Ending the Silence of Human Trafficking

A serious, socialissue prompts students to learn how to write argumentatively about their viewpoint

Every year millions of young girls and boys fall victim to human trafficking. In many cases, these children are introduced to it by a friend. Although it is considered to be a taboo topic, teenage students need to know about the perils of human trafficking and to be exposed to ways that they can help others or help themselves. By reading and analyzing the novel, *Sold*, students see the reasons why human trafficking is so prevalent in third world countries. Through additional research, they discover that human trafficking also exists all over the world, even in the United States, including Miami. Using information from reliable sources, they write argumentatively, expressing their viewpoint regarding the issue. The culminating activity involves the research of possible solutions and the creation of a multimedia project to show their solutions, such as a Public Service Announcement.

> *"While learning about a very real issue that affects young people, student are also learning skills that will be essential for future endeavors."*

STUDENTS

Twenty-five 10th grade ELA students participated in this project in a four week period, during 2 hour blocks every other day. Assistance was needed with developing their presentations and finding reliable resources. This can be adapted to include upper grade levels. Bringing in a speaker would help students understand the reasons why human trafficking is so prevalent today.

MATERIALS & RESOURCES

Materials include the novel *Sold,* by Patricia McCormick; computers, laptops, and/or tablets; video editing and video recording tools; and teacher-made instructions. Resources include the Internet, Microsoft tools, and speakers from local human trafficking prevention organizations.

ABOUT THE TEACHER

Carmen Marroquin has been teaching English Language Arts and Intensive Reading for 10 years in grades 6-12. She is certified to teach both Reading K-12 and Gifted K-12 and has taught all levels, even college level students. She has used this project multiple times throughout her years of teaching.

STANDARDS

LANGUAGE ARTS

LAFS.910.RL.1.2 Determine theme of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped/refined by specific details.

LAFS.910.SL.2.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

LAFS.910.SL.2.5 Make strategic use of digital media in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

LAFS.910.W.1.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

We the Voters

Students are encouraged to excercise their constitutional rights to participate in the political process and take a stand against social injustice

In the wake of student protests from the Marjorie Stoneman Douglas (MSD) "March for Our Lives" event, now more than ever, students are becoming engaged as citizens and exercising their constitutional rights. From school walk-outs and die-ins to protesting at government offices, students are empowered to take action. "We the Voters" is sparked by students participating in the community engagement of the social justice movement. In an effort to educate and prepare students to exercise their constitutional rights to vote in the near future in the political process and take a stand against social injustice, students listen to multimedia presentations on student movements and court cases. Through this project, students understand the importance of "one vote matters." They discuss past and present issues affecting all students, and express ways students can take a stand when policies promote inequality and infringe on individual rights.

CONTACT INFORMATION

LA-SHANDA WEST ED.S. & NICOLAS VALDES

SCHOOL: Cutler Bay Senior High

PRINCIPAL: Lucas De La Torre

EMAIL: LaShandaWest@dadeschools.net

PHONE: 305.253.1581

DOWNLOAD PROJECT INFO: http://bit.ly/2w5O2uK

STANDARDS

SOCIAL STUDIES

SS.912.C.1.1: Evaluate, take, and defend positions on the founding ideals and principles in American Constitutional government.

SS.912.C.1.2: Explain how the Declaration of Independence reflected the political principles of popular sovereignty, social contract, natural rights, and individual rights.

SS.912.C.1.4: Analyze and categorize the diverse viewpoints presented by the Federalists and the Anti-Federalists concerning ratification of the Constitution and inclusion of a bill of rights.

SS.912.H.1.2: Describe how historical events, social context, and culture impact forms, techniques, and purposes of works in the arts, including the relationship between a government and its citizens.

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> *"The purpose of 'We the Voters' is for students to be empowered to excerise their constitutional rights."*

STUDENTS

This project was implemented with American Government students and can be used with all grade levels from K-12 where focus leads from Florida history to regular civics lessons to lessons about constitutional rights and how to participate in government.

MATERIALS & RESOURCES

Materials needed are a computer and SMART/Promethean Board with projector; digital access to the U.S. Constitution. Resources include a multitude of websites, field trips, town hall or school assemblies, Division of Social Sciences Fall and Spring Voter's Registration Drive, possible speakers from Marjory Stoneman Douglas (MSD), and Blair Freeman from Sandy Hook Promise Foundation (see Curriculum Packet for websites and additional resources).

ABOUT THE TEACHERS

La-Shanda West, Ed.S. is The Education Fund's Disseminator for iLearn Civics and Bank It. Her honors include being named the 2016 National Celebrity Educator of the Year, the 2016 Legacy Magazine Top Educator of the Year for South Florida, and the Florida Humanities Council Master Teacher. She has served the teaching profession for 17 years and has taught grades 6-12. This is an original project but adapted from the ideas of "We the People."

Nicolas Valdes, co-teacher of the project with La-Shanda West, has served the teaching profession for 11 years and has taught grades 3-12. He earned his Bachelor's of Arts in History from Florida International University and a Masters in Curriculum and Instruction from Concordia University. He functioned as a Curriculum Support Specialist for the Division of Social Studies, and was recognized as a Rookie Teacher of the Year and Teacher of the Year.

CONTACT INFORMATION

PRECIOUS SYMONETTE, PH.D.

SCHOOL: Miami Norland Senior High School

PRINCIPAL: Reginald Lee

EMAIL: psymonette@dadeschools.net

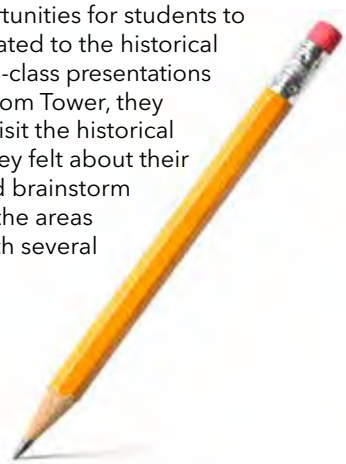
PHONE: 305. 653.1416

DOWNLOAD PROJECT INFO: http://bit.ly/2w2J96J

Writing About Miami (WAM)

Students learn the importance of experiential learning and how to evolve into culturally responsive and respectful citizens

Many students in Miami know very little about the history of their city. Writing About Miami, aka the WAM Project, provides opportunities for students to learn, write, and create service learning projects related to the historical sites located within the city. Once students receive in-class presentations about historical places of interest such as the Freedom Tower, they conduct research and are given an opportunity to visit the historical sites and write about what they learned and how they felt about their experience. Students are then placed in groups and brainstorm possible service learning activities that can benefit the areas they have visited. Although these students cope with several social issues while residing in low, socio-economic communities, the WAM Project helps them to understand that learning and volunteering in their communities can lead to improved quality of their lives while creating a sense of community among themselves and functioning as role models for their peers.



"In this project, my students not only improved their academics but also increased their community involvement."

STUDENTS

Approximately meeting three times a week, 150 students participated in this project, ranging from grades 9-12. They improved in their respective writing, history, civics courses, and EOC assessments. This project can be adapted to other ages, grade levels, and can be used with small and large groups.

MATERIALS & RESOURCES

Materials include pens, pencils, notebook, and any space used to write. Basic school supplies can be used to complete this project. Resources were field trips to local historical sites around Miami. Students also visited their local libraries, and conducted research using the Internet. Bus transportation was sponsored by local entities and though the school's ESSAC committee.

ABOUT THE TEACHER

A native of Broward County, Dr. Precious Symonette grew up demonstrating a passion for writing and community involvement. She has been teaching for the past 12 years. Dr. Symonette was named the 2017 M-DCPS Teacher of the Year, 2017 Macy's Florida Teacher of the Year finalist, as one of South Florida's Legacy Top Black Educators of 2016, and recognized as a 2016 National Education Association Superhero Educator. She is an official Freedom Writers Teacher and she started the Florida Freedom Writers Foundation that helps to promote free expression both in written and verbal form. Dr. Symonette has used this project for six years.

STANDARDS

LANGUAGE ARTS

LA.910.4.1.1- The student will write in a variety of expressive and reflective forms that use a range of appropriate strategies and narrative techniques, employ literary devices, and sensory description.

LAFS.910. W.2.5- The student will develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing a specific purpose and audience.

LAFS.910. W.1.1-Delineate and evaluate the argument and specific claims in a text, assessing validity and relevant and sufficient evidence.

LAFS.1112.W.2.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

SPONSORED BY

School District Education Foundation Matching Grant Program

Smart Path: Guide to **College Clubs**

Empowering low-income and first generation students with strategies and services to obtain higher education

The goal behind College Clubs is to embed a "college going" culture in high schools, empowering low-income and first generation students with effective strategies and services to bring down the formidable barriers to higher education. This project addresses a variety of topics: how to research colleges, complete the FAFSA and negotiate the complex applications for college, financial aid, and scholarships. Students not only learn the skills needed to apply for and succeed in college, but also to make college the goal

The Guide to College Clubs assists schools in establishing college clubs for students in grades 9-12 and provides a collection of lessons, tools, and resources all faculty can utilize throughout the school year to inform and prepare all students for success in college and career. Lessons and topics covered include essay writing, test taking strategies, college research, and improving study skills.

> *"Students not only learn the skills needed to apply for and succeed in college, but also to make college the goal."*

CONTACT INFORMATION

ELIZABETH BRIANO & VICKY PUENTES

SCHOOLS: Booker T. Washington Senior High School & Miami Senior High School

PRINCIPALS: William Aristide & Benny Valdes

EMAIL: ebriano@dadeschools.net
vpuentes@dadeschools.net

PHONE: 305.324.8900 & 305.649.9800 ext. 2380

DOWNLOAD PROJECT INFO: educationfund.org

STANDARDS

ENGLISH LANGUAGE ARTS

LAFS.1112.L.3.6: Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level.

LAFS.K12.SL.1.2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

GIFTED

G.K12.1.1.2: Use a variety of professional journals, professional databases, and college textbooks to make connections between and/or among fields of discipline.

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MBF Miami Bayside Foundation

MIAMI-DADE COUNTY

STUDENTS

The Guide to College Clubs offers lessons for students in grades 9-12. Club participants include those who are the first in their family to attend college, those whose GPAs range between a C to a B, and those already seeking postsecondary options and support.

MATERIALS & RESOURCES

College Clubs require a dedicated classroom or lab space. Frequent access to computers allows for successful implementation of club lessons and activities.

ABOUT THE TEACHERS

Booker T. Washington Senior High School is changing the path of their students' futures by instilling the importance of higher education post-graduation. Together, teacher Elizabeth Briano, administration, and other key personnel, have implemented a College Club that serves the entire student body and focuses on preparing students from their first day as Freshmen. Bi-monthly meetings, workshops, college graduate mentors, and college tours have created a college-going attitude that has positively influenced the culture of the school.

Founded by CAP Advisor Vicky Puentes and implemented together with College and Career Club Advisor, Orly Garcia, "Stings Strive for Success" is a college program at Miami Senior High School that promotes a culture of post-secondary readiness, beginning with ninth grade students. "Stings Strive for Success" has been a Florida FAFSA Champion and has collaborated with the community to run a Saturday college boot camp where students are offered college planning and assistance.

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The Teacher Conference

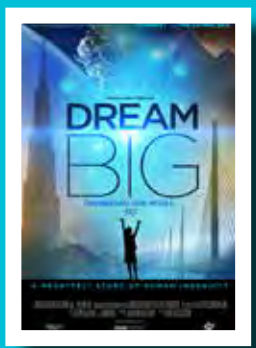
Featuring special keynote presentation by:

Fredi Lajvardi

Nationally Recognized STEM Educator & Subject of the Critically Acclaimed Documentary, Underwater Dreams, *the Major Motion Picture,* Spare Parts *and the IMAX film* Dream Big

Fredi captivated the country when he led his team of disadvantaged teenagers in a university-level underwater robotics competition, where they defeated leading schools, including top-ranked MIT. Their story inspired the acclaimed documentary, *Underwater Dreams,* and was adapted into the major motion picture, *Spare Parts,* starring actor and comedian, George Lopez as Fredi. His award-winning Falcon Robotics team is also featured in the 2017 film *Dream Big.*

Honored with numerous awards for his spirited passion for teaching, Fredi continues to serve as a prominent advocate about the importance of STEM education nationwide. With an effective leadership philosophy, incredible story and a spirited passion for teaching, Lajvardi offers valuable and inspiring insight on fostering teamwork, sparking creativity and helping teachers and students realize and maximize their potential.



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SESSION A

FINANCIAL LITERACY

____ **Financial Freedom: Cash Flowin' to the Future** (17-18) Grades 7-12
Disseminator: Natalia Allen
Through a series of financial literacy workshops, students learn about finance fundamentals, money management as well as educational planning. Students identify key factors that are important when considering college options, research the total cost of attendance, and develop a college plan with a timeline for important deadlines.

____ **iPlay: Using YouTube for Financial Literacy Concept Connections** **(NEW)**
Grades 3-6
Disseminator: Iliana Herrera
Lights, camera, action! Show students how to perform and record self-selected scenes from a chapter book that showcase examples of concepts learned from financial literacy lessons. Providing commentary, students create YouTube videos that are uploaded to their class YouTube channel.

____ **Once Upon a Time in Economics** **(NEW)** Grades 9-12
Disseminator: Daniel Vinat
After completing a unit on economics, students show mastery of the concepts by means of analysis of a fairy tale - through an economic lens. Students reproduce a fairy tale for an elementary school student audience by creating a book, highlighting the corresponding/related economic concepts, and including a student-created glossary to help the younger readers better understand the concepts.

INTERDISCIPLINARY

_____ **Assess with Less Stress** **(NEW)**
Grades K-12
Disseminator: Michelle Singh
Students learn how to use online tools to make assessments engaging, interactive, and stress-free. Teachers deliver content to students' mobile devices, and students complete collaborative or individual activities that demonstrate their knowledge of the content they just learned.

__ **"Sense"-sational Story Time Snacks**
(05-06) Grades Pre-K - 3
Disseminator: Mayra Perez
Integrating cooking activities with stories helps students make connections between literature, math, and science concepts.

LANGUAGE ARTS

____ **Get on the Ball!** **(NEW)** K-5
Disseminator: Jacqueline Gil-Abarzua
Learn how various types of flexible seating replaces traditional seating arrangements by using balance balls, wobble chairs, peanut balls, or balance discs. This strategy of using a balance ball or another apparatus, affords students with better concentration, attendance, and behavior, and they look forward to coming to school.

____ **Using Science A-Z to Integrate Literacy into the Content Areas** **(NEW)**
Grades K-6
Help K-6 students learn to read through science and learn science through reading! This session helps teachers to engage students at ALL reading levels, and support their literacy development and science content knowledge simultaneously with the comprehensive and versatile science resources and activities in Science A-Z. In this session, learn how to: (1) Utilize Science A-Z resources for reading in the content area of science and building background knowledge: You'll receive access to Interactive Science Lessons, FOCUS Books, Quick Reads, Investigation Packs, Hands-on Experiments, Project-Based Learning Packs, Storylines, Career Files and more; (2) Plan and assign Science Units using Florida Science Standards and Access Points; (3) Teach valuable informational reading skills; and (4) Support content vocabulary. Science A-Z is aligned to Florida Science Standards and Access Points. **Each attendee will receive free trial access to Science A-Z.**

____ **The Readers' Café** **(NEW)** Grades 6-12
Disseminator: Willecia Stubbs
Designed to mimic a café's cozy atmosphere, complete with a mini dining table decorated with place settings, tea cups and saucers, artificial candles, pillows, and ambiance lighting, The Readers' Café provides a creative space for students to learn reading skills in a relaxing, appealing environment. Other features include café stations and Green Tea Fridays.

SOCIAL STUDIES

____ **Bonnets and Bandanas: Settler Trading Post Economics** (17-18)
Grades 2-5
Disseminator: Katie Prelaz
By recreating an early Miami trading post, the early history comes alive for students as they learn about essential economic concepts.

____**Teaching Trunks on the Holocaust**
(11-12) Grades 5-12
Disseminator: Esther Sterental
Teaching Trunks from the Florida Holocaust Museum in St. Petersburg can be obtained free of charge with all the materials and lesson plans needed for your grade level. Several trunks are displayed with advice and tips on how to properly teach the Holocaust.

____ **The Art of Arguing** **(NEW)** Grades 4-12
Disseminator: Stacy Mogull
This project, focusing on the art of debating, is a great way to get reluctant students involved. Many students who appear quiet, shine once they can argue about a topic they are passionate about. Often, students become better listeners and stay engaged with the lesson.

____ **Women in The Holocaust–Rescue and Resistance** Grades 6-12
Presenter: Dr. Miriam Klein Kassenoff
Women played an important role in various resistance and rescue efforts. This powerful presentation will substantially aid you in Teaching the Holocaust, highlighting the amazing accomplishments of women and actually hearing their voices live. Dr. Kassenoff is a child survivor of the Holocaust and Education Specialist for M-DCPS. She will speaking live at this workshop – it is a presentation not to be missed!

STEM/STEAM

____ **Building Robots … and More (SD ROBO TECH)** **(NEW)** Grades 9-12
Disseminator: Shawn Waring
Not all after school robotics clubs are alike. In an effort to address academic and social struggles that often plague students, this afterschool Robotics Club promotes success in reading comprehension and social connections while students use engineering skills to build VEX Robots for competition.

____ **Butterfly Bonanza** (99-00)
Grades Pre-K - 5
Disseminator: Nancy Sale
An easy-to-create butterfly garden provides hands-on opportunities to study science, horticulture, and language arts.

____ **Google Street View: Navigating the Coordinate Plane** **(NEW)** Grades 6-12
Disseminator: Kelsey Major
This workshop infuses technology, local history, math history, and coordinate plane mathematics. Using Google Street View to locate and measure distances between objects in the city and to implement the challenging activities involved, students are better able to comprehend the coordinate plane, the ideas associated with it, and its usefulness in mathematics.

____ **iSTEM Girls** **(NEW)** Grades 2-5
Disseminator: Navia Gomez
Gentlemen, move over - the ladies are coming! Through the use of Sally Ride Science Career books, female students are encouraged to realize their dreams and aspirations in becoming our future Scientists, Technologists, Engineers, and Mathematicians.

____ **Makey Makey Makerspace** (17-18)
Grades 4-10
Disseminator: Dale Adamson
Makey Makey circuit boards transform a classroom into a Makerspace where critical thinking and creativity thrive while students learn about circuits, electronics, and computer science. In one project, students make music by using Scratch to write small programs that allow the Makey Makey boards to turn a bunch of bananas into a piano keyboard. The reusable Makey Makey boards are limitless.

____ **The Power of Math in LEGO Robotics** **(NEW)** Grades 4-8
Disseminator: Marco Diez
There is more to LEGOS than just blocks – there are robots, too. With a LEGO Robot, the question of, "How are we supposed to use this math in real-life?" is answered. In this project, students learn how to apply mathematical calculations to make the LEGO Robot move in various ways.

____ **The Shape of Art through Math**
(NEW) Grades 4-10
Disseminator: Leah Bido
Unleashing their artistic side, students color and paint shapes, manipulate fabric and ribbon into lines, rays, and angles, and design how to arrange everything on quality canvas. Working in teams, students learn to communicate effectively as they work together on their creations while re-enforcing their understanding of lines, angles, and shapes.

FOOD FORESTS FOR SCHOOLS (Interdisciplinary Studies Using School Gardens)

____ **Harvest Photography** Grades K-5
Presenter: Tony Chirinos
Do teachers and students like taking pictures? Who doesn't? This workshop will teach you the basics of taking quality photographs of your school garden with your phone or tablet. Take this workshop now and learn how to use your garden pictures with students for science and language arts through journaling and social media. Learn from a master photographer about light, filters, and composition. As a bonus, you are guaranteed to never post another terrible food picture!

____ **Plant Philosophy** Grades K-5
Presenter: Jorge Palacios
Who says that edible plants can't grow in the shade? Welcome to the world of Food Forests... the shady side of gardening! Learn about fast growing trees for your garden and the Food Forest plants that will thrive beneath them. Explore the benefits of a fast growing, edible canopy and gardening in the cool shade.

VISUAL ARTS/MUSIC

____ **Passionate Pots** **(NEW)** Grades 2-12
Disseminator: Michael Flaum
Students learn about earthen clay and how it has been used by civilizations for centuries. Shaping a small lump of clay, students create beautiful and useful pinch pots. Students gain self-respect, self-esteem, and appreciation for art and science.

OTHER

____ **Grant Writing Workshop**
Disseminator: Lucy Petrey
Practical advice on grant writing, including Innovator Grants. Leave the workshop with an Adapter Grant application almost complete!

____ **National Board Certified Teachers Information Session**
Disseminator: Judith Grey, NBCT
Receive tips and advice on the process of certification from the NBCT of Miami group.

SESSION B

FINANCIAL LITERACY

____ **Financial Algebra: Just a Few Keystrokes Away** **(NEW)** Grades 9-12
Disseminator: Richard Boyd
Many students see little application of algebra in everyday life. This Financial Algebra course bridges that gap by using formulas integrated in banking and other areas of financial literacy. Students gain financial literacy skills necessary to enter the workforce as adults.

____ **Financial Freedom: Cash Flowin' to the Future** (17-18) Grades 7-12
Disseminator: Natalia Allen
(See workshop description under Session A)

INTERDISCIPLINARY

____ **"Sense"-sational Story Time Snacks** (05-06) Grades Pre-K - 3
Disseminator: Mayra Perez
(See workshop description under Session A)

LANGUAGE ARTS

____ **Alexa in the Classroom** **(NEW)** Grades 2-5
Disseminator: Zeny Ulloa
Students use Amazon's Echo device "Alexa" to provide answers to questions when working at independent centers while the teacher conducts differentiated instruction at the teacher-led center. After breaking into groups, students ask Alexa pertinent questions needed to help them understand crucial concepts and facts.

____ **Guiding Early Literacy with Raz Plus** Grades Pre-K-2
Studies show a strong correlation between 3rd grade reading proficiency and future academic success. That's why it's critical to provide students with quality PreK-2 literacy instruction that engages their curiosity and gets them excited about reading. Learn how you can use Raz-Plus to move your emergent readers toward reading proficiency. In this session: (1) Utilize leveled readers and guided reading lesson resources to support differentiated reading instruction; (2) Engage students in fluent decoding of words & construction of meaning; (3) Incorporate a variety of text types to supplement phonological awareness, phonics, and vocabulary instruction; (4) Increase vocabulary development in early grades K-3; and (5) Build Social Studies & Science background knowledge. Raz Plus is correlated to Reading Wonders and aligned to Florida Standards and Access Points for ELA. **Each attendee will receive trial access to Raz Plus and Vocabulary A-Z.**

____ **Literacy in a Pot!** **(NEW)** Grades 2-5
Disseminator: Jennifer Smith
Give your students a 'taste' of something different - incorporate food into reading instruction. Novels are chosen that give students complex text paired with snacks or meals they create in class, such as penguin-shaped pancakes from Mr. Poppers Penguins. Students are engaged, class becomes more productive and meaningful, and test scores rise through the roof!

____ **Punctuation Station Grammar Board Game** (16-17) Grades 6-8
Disseminator: Ileen Martin
Need a fun and creative way to make grammar more memorable? This project allows students to collaborate together and creat an exciting, hands-on board game that makes learning and reviewing grammar concepts an unforgettable experience.

____ **Teens Taking on Technology** (17-18) Grades 6-12
Disseminator: Michelle Singh
After reading a challenging text such as The Odyssey, by Homer, students utilize non-traditional, interactive means to demonstrate what they learned in a way that connects them with the real world. Options for project completion using technology include designing a webpage for Odysseus; creating a podcast that focuses on Odysseus' adventure; creating a film documentary and more!

SOCIAL STUDIES

____ **Teaching Trunks on the Holocaust** (11-12) Grades 1-12
Disseminator: Esther Sterental
(See workshop description under Session A)

____ **Unraveling the Past to Create a Better and Inclusive Future** **(NEW)** Grades 6-12
Disseminator: Jacqueline Torres-Quinones
Students learn about the Holocaust, hate crimes, bullying, anti-Semitism events, positive growth mindset strategies, peaceful resolution outcomes, and transparency in communication through written and creative artistic skills. Students develop various afterschool project clubs, brochures, pamphlets, and posters that support character education awareness, values, community service activities, and multiculturalism.

____ **Writing About Miami** **(NEW)** Grades 9-12
Disseminator: Precious Symonette
Students learn, write, and create service learning projects related to Miami historical sites. For students coping with challenges of living in low socio-economic communities, the WAM Project helps them to understand that volunteering in their communities can improve the quality of their lives and create a sense of community while functioning as role models for their peers.

STEM/STEAM

____ **Aerial Ballet: A Swarm of Dancing Drones** (NEW) Grades 9-12
Disseminator: Dr. Suzanne Banas
Students combine coding of drones with real time movements, storytelling, and music to create an aerial ballet. Students study position and direction, properties of 2-D and 3-D shapes, parallel and perpendicular lines, problem solving, logical and computational thinking – key skills that young people require as they move into the future workplace.

____ **Algebra Bungee Jumping** **(NEW)** Grades 6-12
Disseminator: Dale Adamson
Abstract concepts are made applicable in the real world when students learn slope, y-intercept, and scatter plots through a linear bungee jumping challenge. Using rubber bands, they build bungee cords and graph data to approximate the number of bands needed to drop weights from the roof of the building.

____ **Come CODE With Me** (15-16) Grades K-12
Disseminator: Nancy Sale
Boost students' self-confidence as they problem-solve. This project contains self-guided and self-paced tutorials that have programming and instructions to enable students to explore and practice algorithmic thinking by playing games.

____ **Focus Reaction** (17-18) Grades 1-5
Disseminator: James E. Williams, Jr.
Disguising academic and physical fitness opportunities in a fun environment will guarantee immense learning and fun for students as they play Focus Reaction. It is a who-can-answer-first game that is designed to increase reaction time while using critical thinking skills to find the correct mathematic answers.

____ **Green Dreamers Power Up Using Wind Energy** **(NEW)** Grades 2-5
Disseminator: Linda Buquet
Students research how wind energy is being used around the world, then plan and create models of cities powered by wind energy. Completing this project helps students to understand that they have the potential to make a positive difference to help the planet.

____ **It's a Crazy Chain: Building Rube Goldberg Machines** (17-18) Grades 3-12
Disseminator: Lisa Hauser
Inspired by Rube Goldberg's Pulitzer Prize-winning cartoons, students design, build, and fine-tune a compound machine with a minimum of three steps to accomplish a relatively simple task.

____ **Out of the Park** **(NEW)** Grades 4-8
Disseminator: Vianey Sanchez
Focusing on measurement conversions and elapsed time, students learn that mathematics is incorporated in everything around us, including sporting events. This lesson promotes student collaboration while focusing on individual student understanding.

____ **STEM made SIMPLE (Sensible, Integrated, Meaningful, Purposeful Learning, & Engaging)** (16-17) Grades K-5
Disseminator: Navia Gomez
Are you looking for ways to make STEM fun for your students while ensuring important concepts are being learned? Further project-based learning with exciting hands-on projects such as making a paper helicopter, a windmill, parachutes, a lunar lander, and a catapult.

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FOOD FORESTS FOR SCHOOLS (Interdisciplinary Studies Using School Gardens)

____ **Harvest Photography** Grades K-5
Presenter: Tony Chirinos
(See workshop description under Session A)

____ **Plant Philosophy** Grades K-5
Presenter: Jorge Palacios
(See workshop description under Session A)

VISUAL ARTS/MUSIC

____ **Passionate Pots (NEW)** Grades 2-12
Disseminator: Michael Flaum
(See workshop description under Session A)

OTHER

____ **Grant Writing Workshop**
Disseminator: Lucy Petrey
(See workshop description under Session A)

____ **Use Social Media to Enhance Your Teaching Success**
Disseminator: Patricia Maldonado
Bring your electronic device (cell, tablet, or PC) and learn how to use various social media platforms to inform and engage parents, other teachers, and school administrators on what is happening in your classroom. Although it can be done during this workshop, participants are encouraged to create their profile on one social media platform prior to EXPO day in order to maximize workshop time efficiently.

SESSION C

FINANCIAL LITERACY

____ **Financial Freedom: Cash Flowin' to the Future** (17-18) Grades 7-12
Disseminator: Natalia Allen
(See workshop description under Session A)

____ **TSI Tanked! Challenge (NEW)**
Grades 8-12
Disseminator: La-Shanda West
Based on the TV show "Shark Tank," student entrepreneurs present their ideas/inventions to shark investors to seek funding in exchange for a piece of equity in the company/project. Students learn valuable life skills of research and development, product design, cost analysis, finance and accounting, branding, budgeting, digital-designing, entrepreneurship, marketing, and public speaking skills.

LANGUAGE ARTS

____ **Billboard Text-Features Project**
(17-18) Grades 5-10
Disseminator: Ileen Martin
Improve quiz scores and promote enthusiasm for literacy as students create a text-features style "billboard" of their book, advertising its multiple literary elements in an eye-catching and creative way.

____ **Dav Pilkey: You've Inspired a Writing Wave!** (10-11) Grades 2-5
Disseminator: Mayra Perez
Attention workshop participants and fans of Dav Pilkey's children's books! Come and be inspired as you emulate his adventure stories with your own original tales and adapted renditions.

____ **Terrific Teaching Through Technology** (13-14) Grades K-5
Disseminator: Nancy Sale
Children are fascinated with storytelling. Adding technology motivates them even more! Using digital storytelling and iBooksAuthor, students collaborate to write about their edible garden infusing their book with iPad photos, embedded videos, live websites, music, and sound effects!

SOCIAL STUDIES

____ **Anne Frank and Me (NEW)**
Grades 6-12
Disseminator: Jodie Ray
Students read The Diary of Anne Frank (the play), and make comparisons to current issues of discrimination, intolerance, and violence and use blog writing to address hardships within their own communities. Blogging promotes collaboration and interaction among peers and provides students an authentic task, audience, and purpose, allowing them to tackle relevant issues.

____ **Teaching Trunks on the Holocaust**
(11-12) Grades 1-12
Disseminator: Esther Sterental
(See workshop description under Session A)

STEM/STEAM

____ **Animals in the Classroom** (13-14)
Grades K-12
Disseminator: Dr. Suzanne Banas
Learn how to manage animals in the classroom to use as teaching tools which provide a unique connection to science and the natural world. See examples of engaging projects such as the "Hamster-Powered Night Lite," and get tips on free and discounted ways to care for and feed animals.

____ **Art + Coding = Math Success**
(17-18) Grades K-12
Disseminator: Zeny Ulloa
Using Studio Art lessons from Code.org, students are able to visualize abstract math concepts and improve their problem-solving skills.

____ **Come Fly With Me** (17-18) Grades 5-12
Disseminator: Adam Mack
Up, up, and away! Students are introduced to the physics of flight by building and flying their own drones. Through engineering and design modifications, students will eventually be proficient enough to participate in local drone competitions.

____ **Dashing through STEAM (NEW)**
Grades 2-5
Disseminator: Marcelle Farley
Early exposure to the Dash robot eases students into the world of coding and robotics. Students learn sequences and simple coding activities in kindergarten. Coding becomes more complex in each grade level, with 3rd-5th grade students programming the VEX IQ. Hands-on play with the Dash robot promotes computational thinking and creative problem-solving.

____ **Electricity is Current** Grades 6-12
Presenter: Anike Sakariyawo
Investigate the relationship between rubber and metal using Ohm's Law and discover why people use a frying pan with a rubber handle on it when cooking, and how a person can get shocked if they plug in a cord without rubber wrapped around it.

____ **Engineering is Elementary My Dear Watson!** (17-18) Grades K-5
Disseminator: Navia Gomez
This project introduces students to activities that develop creativity, critical thinking, and problem-solving skills. Students solve real-life problems by using the engineering design process as they ask, imagine, plan, create, and improve.

____ **Focus Reaction** (16-17) Grades 1-5
Disseminator: James E. Williams, Jr.
(See workshop description under Session B)

____ **iCodeMe (NEW)** Grades 3-12
Disseminator: Lisa Hauser
Students create self-portraits using Java Script and Khan Academy's tutorial. Beginners learn how to code basic shapes, fills, strokes, and variables. Advanced students learn to add animation. Final projects are printed and displayed in a "gallery" where students provide constructive feedback to one another.

____ **Topo-Mapping from Space** (16-17)
Grades 3-8
Disseminator: Dr. Rossana Chiarella
By exploring how probes measure landscapes, students learn through a series of hands-on activities how to create topographical maps of Earth and other planets. Increased knowledge on planets' topography allows students to develop better ideas about effective exploration and initial formation of planets, their growth, and chronological development.

FOOD FORESTS FOR SCHOOLS (Interdisciplinary Studies Using School Gardens)

____ **Essential Oils and Infusions for Wellness** Grades K-5
Disseminator: Alena Sheriff
Take a deep breath. Do you smell the aroma of Kaffir lime with hints of ginger and lemongrass emanating from your tea cup? What about the fresh scent of rosemary in the air wafting from your student's herbal sachets? Welcome to the relaxing world of essential oils. Make teaching science stress free.

____ **Garden Smoothies** Grades K-5
Presenter: Marie-Rose Denize
Feel like you are part of a live studio audience for the Food Network. The star of this workshop shows you how to create the perfect smoothie. Make and try different delicious smoothies using produce you can grow in your garden. Taste testers, please reserve your spot! Recipes will be provided.

____ **Tools, Teepees, and Trellises**
Grades K-5
Presenter: Sam Chillaron
Learn basic garden construction and become a DIY champ! There are many ways to create basic garden structures for edible plants to grow on. Start with a basic teepee and work your way up to an arbor! Take advantage of vertical space and beautify your garden. This is a project that students will never forget.

VISUAL ARTS/MUSIC

____ **Eco Prints** (17-18) Grades 1-12
Disseminator: Susan Feliciano
Students think creatively and experiment as they discover a natural dyeing process using plants, flowers, leaves, vegetables, and fruits. Students create a book with intricate designs and patterns by using heat to transfer natural pigments from the plants to paper.

____ **Getting Forked Up: Taking a Bite Out of the Major Scale (NEW)** Grades 6-12
Disseminator: Eric Firestone
By exploring sound waves, the mathematical relationships of the scale, and vocal technique, choral students develop a deeper understanding of music and the world around them. Students learn basic concepts of sound waves, periods, cycles, visual representations, and resonance.

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OTHER

___ **Grant Writing Workshop**
Disseminator: Michelle Singh
Practical advice on grant writing including Innovator Grants. Leave the workshop with an Adapter Grant application almost complete!

___ **SmartPath: Guide to College Clubs**
Grades 9-12
Presenters: Vicky Puentes and Elizabeth Briano
Aimed to empower low-income and first generation students with effective strategies and services to bring down the barriers to higher education, the Guide to College Clubs provides a collection of lessons, tools, and resources faculty can utilize throughout the school year to inform and prepare all students for success in college and career.

SESSION D

FINANCIAL LITERACY

___ **Financial Freedom: Cash Flowin' to the Future** (17-18) Grades 7-12
Disseminator: Natalia Allen
(See workshop description under Session A)

LANGUAGE ARTS

___ **Darth Vader Meets Macbeth: A 3-D Tragic Hero's Journey** **(NEW)** Grades 6-12
Disseminator: Ileen Martin
Through interactive presentations, students learn about Joseph Campbell's Hero's Journey and archetypes. After viewing Star Wars Episode II, they are introduced to Shakespeare's Macbeth. Using 3-D hangers, students display Campbell's concepts to the tragic heroes of both fictional works, comparing and contrasting the hero's journey of two of fiction's most infamous characters.

___ **Dav Pilkey: You've Inspired a Writing Wave!** (10-11) Grades 2-5
Disseminator: Mayra Perez
(See workshop description under Session C)

___ **Don't Let Go that LEGO!** (17-18) Grades K-8
Disseminator: Duysevi Miyar
As a tactile approach to reading and writing, students use LEGO StoryStarter to develop skills in analyzing story elements, identifying genres, and enhancing personal speaking and listening abilities.

___ **Reading Through Rhymes and Rhythms** (01-02) Grades Pre-K - 2
Disseminator: Nancy Sale
Karaoke is used to help children with visual, aural, and language development.

SOCIAL STUDIES

___**End the Silence of Human Trafficking** **(NEW)** Grades 7-12
Disseminator: Carmen Marroquin
Students learn about global, domestic, and local human trafficking by reading and analyzing the novel, *Sold* and other sources. Writing argumentatively, students express their viewpoint and create a multimedia project to show their solutions, such as a Public Service Announcement.

___**Teaching Trunks on the Holocaust** (11-12) Grades 1-12
Disseminator: Esther Sterental
(See workshop description under Session A)

___**We The Voters** **(NEW)** Grades 9-12
Disseminator: La-Shanda West and Nicolas Valdes
To educate and prepare students to exercise their voting rights, participate in the political process and take a stand against social injustice, students listen to multimedia presentations on student movements and court cases. They discuss past and present issues affecting all students, and express ways students can take a stand when policies promote inequality and infringe on individual rights.

STEM/STEAM

___ **Electricity is Current** Grades 6-12
Presenter: Anike Sakariyawo
(See workshop description under Session C)

___ **Engineering By Design (3-D Printing)** (17-18) Grades 6-12
Disseminator: Dr. Suzanne Banas
Learn how to bring 3-D printing into your classroom! This workshop covers the hardware needed for 3-D printing and the engineering and design process. With 3-D printing, students develop and create prototypes, then test, evaluate, and redesign as needed.

___ **How Things Fly: Paper Airplanes** (15-16) Grades K-6
Disseminator: Dr. Rossana Chiarella
This project teaches the fundamental principles of math, physics, and science by demonstrating their application in the world of aeronautics and aerospace. Paper airplanes are the simplest aircraft to build and fly, and students can also learn the basics of aerodynamics. Students build paper planes following instructions for different models, thereby learning the effects of mass, air resistance, shape, and weight.

___ **LEGO: MoreToMath than Meets the Eye** (15-16) Grades K-5
Disseminator: Zeny Ulloa
An innovative hands-on educational tool for targeting mathematical problem solving, the LEGO brick makes theoretical and abstract mathematical concepts tangible for students. The MoreToMath set successfully provides students with the visual/kinesthetic tools to reinforce and understand the latest curriculum standards.

___ **The ART of Robotics** (16-17)
Grades 5-12
Disseminator: Marcelle Farley
The ART of Robotics takes students and their LEGO Mindstorm EV3 robot to a new level by adding an art component. Students use a series of commands to program the robot to draw various geometric shapes and patterns. Not only does this project give students more experience with interacting with new technologies, it also affords them the opportunity to express themselves artistically in a new and challenging way.

FOOD FORESTS FOR SCHOOLS (Interdisciplinary Studies Using School Gardens)

___ **Essential Oils and Infusions for Wellness** Grades K-5
Disseminator: Alena Sheriff
(See workshop description under Session C)

___ **Garden Smoothies** Grades K-5
Presenter: Marie-Rose Denize
(See workshop description under Session C)

___ **Tools, Teepees, and Trellises**
Grades K-5
Presenter: Sam Chillaron
(See workshop description under Session C)

VISUAL ARTS/MUSIC

___ **Interwoven Fibers'Optics** **(NEW)**
Grades 6-12
Disseminator: Lourdes Fuller
Students learn how to make looms from discarded materials or cardboard. Various techniques such as tabby weave, Egyptian knot, and inserted weft are modeled for students, who experiment with their use of materials, colors, and textures. Students feel a sense of accomplishment for making something beautiful from pieces of strings and fabric.

OTHER

___ **Grant Writing Workshop**
Disseminator: Michelle Singh
(See workshop description under Session C)

___ **SmartPath: Guide to College Clubs**
Grades 9-12
Presenters: Vicky Puentes and Elizabeth Briano
(See workshop description under Session C)

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Remembering Mrs. Gloria Fajardo

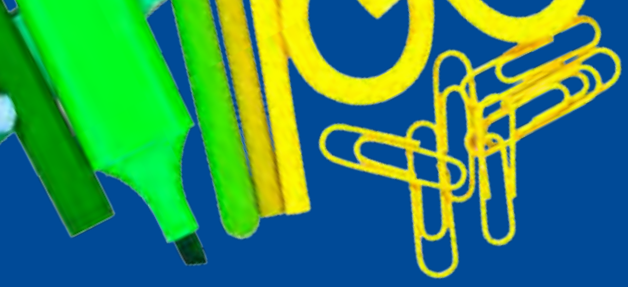
Beloved Teacher, Mother and Community Member

The Education Fund acknowledges and honors the memory of Mrs. Gloria Fajardo, mother of Grammy Award-winning singer and songwriter, Gloria Estefan. Mrs. Fajardo taught at James H. Bright/J.W. Johnson Elementary School in Hialeah.

In her memory, Mrs. Iris Smith, a close and dear friend of the Estefan family, has made a heartfelt and generous gift to The Education Fund to celebrate the life of Mrs. Fajardo and her commitment to education and to our public school students.

The Education Fund will use this gift to ensure that thousands of children receive the supplies and support they need to make learning come alive.

Please join us as we remember Mrs. Fajardo, a woman who committed her life to family and the children in our public schools, and who truly believed in education.



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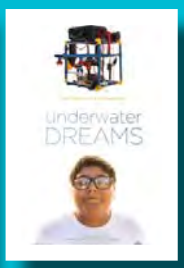

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Fredi Lajvardi: "Improbable to Unstoppable"

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