2018-2019 Innovator Grant Application

Grant ID	2
School Level	Elementary (1st Grade)

Project Specifics

Project title: Coding for Non-Readers
Amount requested: $982
Teaching assignment: First grade
Number of students participating: 45
Level of achievement: All Levels (ELL, SPED)

Ethnic Breakdown of Program

% Black: 50	**% Hispanic:** 50
% White: 0	**% Other:** 0

Ethnicity of School Distribution

% Black: 50	**% Hispanic:** 50
% White: 0	**% Other:** 0

Project Description

1. **Summary of your project: (one paragraph description of who, what, why and how)**
   Several of the students who are new to our school came after the hurricane in Puerto Rico. Therefore, some of our students speak little or no English. Initially, the App guides the student through the process of coding but gradually students will make their own coding decisions. It requires students to count and identify numbers. They will also use critical thinking to determine how to move objects throughout the game. The Osmo coding game will allow me to engage my non-readers in coding activities while they learn how to read. Osmo is a way for students to interact with technology without losing the value of hands-on play. Students will use the hands-on coding tiles and the iPad to control the character Awbie. Students can use logic and problem solving even if they cannot read.

2. **Why is this project innovative?**

   This project is innovative because it is teaching students in the primary grade how to code and then to use what they learn about coding to program robots. This project is different from what students usually do in school. With high stakes testing as a priority in schools, many students do not have the opportunity to play and explore while learning. This project will allow students to be creative while mastering the standards in mathematics and science.

3. **Describe your project in detail.**

   Students in first grade will participate in Coding for Non-Readers. Students will work in small groups to explore coding with Osmo.

   They Learn to code with physical coding blocks from Osmo, the award-winning tangible play platform that like Lego for coding. The modular and durable coding blocks are designed to give your child the best possible introduction to the world of coding.

   The students will control Awbie, a playful character who loves delicious strawberries. With each coding command, they will guide Awbie on a wondrous tree-shaking, strawberry-munching adventure! The students will be engaged in controlling this playful character while learning to code.

   The game tiles and the iPads will be set up in two stations in the classroom were students can work together to solve the various levels.

   Students will first practice sequencing and then learn how to create loops by using the repeat tile. Once students have a firm grasp of the 5 key concepts, they will transition to more abstract coding. They will then apply what they have learned to coding the Dash and Dot robots.

4. **What are examples of envisioned student activities?**

   Activities:

- Students will work in groups to program Awbie
- Key Concept #1: Students learn how to use the Verb Command to control Awbie's actions
- Key Concept #2: Students will learn how to use the quantifier tiles to determine how many steps or jumps Awbie should make.
- Key Concepts # 3 & 4: Students will use the sequencing tiles to add a list of steps to their code.
- Key concept # 5: Students will learn how to put steps that are repeated in a loop

5. **Projected Timeline: Please provide a list of activities by month, starting in January, to show that the project is well planned.**

   January:

   - Teacher will demonstrate Osmo Coding Game by having students will gather around an Osmo and iPad station, or by using a projector to demo the game.
   - Teacher will set up multiple stations of Osmo Coding and form groups of students.

   February - May:

   - Students rotate through each station, playing the game using tangible coding tiles.
   - After each station, the students also rate the difficulty on a scale of 1-5.
   - Once rotations are complete, have a class discussion about what worked
   - Student will work through the levels until they have completed all levels.
   - Students will use what they learn about coding to code the classroom robots.

6. **Project Evaluation: How will you determine if your objectives have been met?**

   All students in first grade will complete the five key levels:

   1. Verb Commands
   2. Qualifiers
   3. Sequencing
   4. Sequencing & Fenzy
   5. Using Repeat

7. **Budget Detail: For each item to be purchased with this grant, include (1) where you intend to buy the item; (2) the quantity; and (3) the cost of each item. Please also specify if anything is being provided by others.**

Item	Vendor	Amt x cost	Total
Osmo Coding	Amazon	2 X $56	$112
iPads	Amazon	2 x $390	$780
iPad cases	Amazon	2 x $15	$ 30
Osmo stand	Amazon	2 x $30	$ 60

8. **Total project budget:** $982

9. **Total amount that you are requesting from The Education Fund:** $982

2018-2019 Innovator Grant Application

Grant ID	8
School Level	High School Mathematics and Speech and Debate

Project Specifics

Project title: The Statistics of Mass Shootings
Amount requested: $1,000.00
Teaching assignment: Mathematics and Speech and Debate
Number of students participating: 125
Level of achievement: ESE, ELL, Regular

Ethnic Breakdown of Program

% Black: 1	**% Hispanic:** 97
% White: 2	**% Other:**

Ethnicity of School Distribution

% Black: 1	**% Hispanic:** 97
% White: 2	**% Other:**

Project Description

1. Summary of your project: (one paragraph description of who, what, why and how)

The project will allow students to analyze the statistical data that relates to Mass Shootings over the past 25 years. Mass Shootings have become a public safety and health challenge for Americans during this time. Each student will do independent research on a particular mass shooting. This information will be presented in the form of a poster. All of the individual posters will be used to create a mass shooting catalouge that will be sent to each United States Congressman where the particular mass shooting took place (Two Senators and the Representative for the particular district). For Example Marjorie Stoneman Douglas Mass Shooting: Senator Marco Rubio; Senator Elect Rick Scott; and Representative Ted Deutch.

2. **Why is this project innovative?**

   The project is innovative because it gives students an opportunity to begin to uncover some of the motivations that cause mass shootings. It also affords them an opportunity to to uncover the statistical data that underlies these horrific acts, which will allow them to make connections and provide solutions. Additionally, it makes them advocates and teaches them that they can make an impact by engaging their community and by confronting (in a respectful manner) their leaders.

3. **Describe your project in detail.**
   Each of the students that I teach will randomly be assigned one of the mass shooting that has occurred over the past 25 years. The student will then research the location where the mass shooting took place (School, business, etc. They will need to:

   - List the name of the people that were injured or killed.
   - Identify the person responsible for the mass shooting.
   - Determine if there was a mental health component linked to The Mass Shooting.
   - Identify the weapon or weapons that were used.
   - Try to determine the motivation for the mass shooting.
   - Determine if potential signs were missed that could have avoided the shooting.
   - Offer solutions to prevent mass shootings in the future.
   - Highlight and elaborate on one of the victims that was injured or killed in the mass shooting
   - Find the names of the United States Senators that represent the State where the mass shooting took place.
   - Find out the name of the Congressman that represents The District where the mass shooting occurred.
   - Find a quotation that the Congressman and Senators made following the mass shooting.
   - Students will then create an 8 x 10 poster, with the statistical information, that depicts their particular mass shooting.
   - The posters will be combined into a book.
   - The book will be signed by the students.
   - The book will then be delivered to each United States Congressman and Senator where one of the mass shootings took place.

4. **What are examples of envisioned student activities?**

   - Students will conduct independent and group research as it relates to mass shootings.
   - They will have opportunities to present their findings to their peers.
   - Students will create posters to depict the details of their mass shooting.
   - Students will create a research paper based on the statistical information.
   - Students will collaborate on the creation of a catalog of their mass shootings.
   - Students will invite Congresswoman elect, Debbie Mucarsel-Powell, to the school and present her with catalog.
   - Students will then ask her to deliver them to her Congressional colleagues.

5. **Projected Timeline: Please provide a list of activities by month, starting in January, to show that the project is well planned.**

   - January: Students are randomly assigned a mass shootings that has occurred in the past 25 years.
   - January: Students are briefed on the details of the project.
   - Mid January: Student begin their independent research.
   - End of January: Students submit their rough draft of the project.
   - February: Student begin to make corrections to their research.
   - Mid February: Students present a final poster that has the information about their mass shooting
   - Mid February: Students discuss and debate their projects and the statistical data that they have collected.
   - End of February: Students combine the statistical data and draw conclusions.
   - March: Student leaders combine their statistical findings about mass shootings and write a paper with recommendations and solutions in it.
   - Mid March: Students combine the posters and research paper into a book.
   - End of March: The book is proofread by student leaders and then sent to be printed.
   - Early April: Congresswoman elect, Debbie Mucarsel-Powell, will be invited to address the students and to receive the book for distribution.

6. **Project Evaluation: How will you determine if your objectives have been met?**
   The timeline will be my guide to determine whether the objectives have been met. There is a product that is associated with each date. In fact, the initial idea has already been given to the students. So, some of them are already thinking about the project, and some have already created posters. Furthermore, the objectives are concrete and easily measurable. Additionally, I will create definite dates and deadlines for each aspect of the project.

7. **Budget Detail: For each item to be purchased with this grant, include (1) where you intend to buy the item; (2) the quantity; and (3) the cost of each item. Please also specify if anything is being provided by others.**

Student research: $0.00
Supplies: (paper, markers, pens, pencils, etc...): $150.00
Creation of the mass shooting catalog/book (multiple copies): $650.00
Incentive for the students (pizza party at the end of the project): $200.00

8. **Total project budget:** $1,000.00

9. **Total amount that you are requesting from The Education Fund:** $1,000.00

2018-2019 Innovator Grant Application

Grant ID#: 69
School Level: K-8

Project Specifics

Project Title: Learning Math With Wonderful 3D Printing!
Amount Requested: 998.95
Teaching Assignment: 7th Grade Math
Number of Students Participating: 90
Level of Achievement: Mixture: Advanced, ESE, ESOL Levels 1-4, Regular.

Ethnic Breakdown of Program

% Black: 7	**% Hispanic: 80**
% White: 9	**% Other: 4**

Ethnicity of School Distribution

% Black: 7.2	**% Hispanic: 80.4**
% White: 9.96	**% Other: 2.44**

Project Description

1. Summary of your project (one paragraph): Please include who, what, why, and how.

This project involves the usage of a 3D printer integrated into the 7th grade math curriculum. The printer and the products it creates will be utilized in the instruction, remediation, and reinforcement of the 7th grade math domain standards: Relations & Proportional Relationships, Number System, Expressions & Equations, and Geometry. It will empower students to take ownership of their learning using fun, interactive project based learning with real world viability. These projects will be integrated into our existing STEAM, and International Baccalaureate programs to stimulate problem-based learning using higher order thinking skills. It will serve a student population of roughly 90+ TITLE I 7th grade students, over 80% of whom speak English as a second language.

2. What makes this project innovative?

This project will revolutionize the way math is taught in my school. It will allow students to create and print their own manipulatives, products, and projects thereby increasing student buy-in on their education and having a final tangible product rather than an abstract concept. This empowerment of students to actively engage with their curriculum will not only result in higher levels of comprehension and proficiency of on-standard material through making abstract concepts concrete, but will also assist in teaching students the 21st century skills of the Engineering Process, coding, and virtual design. The addition of a 3D printer to my classroom will allow me more flexibility in teaching with Project-Based Learning initiatives that fulfill STEAM & IB goals, as well as getting students to and think innovatively on how to solve problems.

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3. Describe your project idea in detail.

I teach 7th grade math at Fienberg-Fisher K-8 Center. We are a Title I School, with 82% of our children qualifying for free or reduced lunch. We are a Special Education center for the City of Miami Beach, and 17% of our population is classified as SPED. In addition, 80% of our students are learning English as a second language, most are first generation Americans from Latin American immigrant families. Consequently, our children's English proficiency varies greatly amongst classes. Many of our children have also missed year(s) of instruction in their home countries, compounding their linguistic difficulties with social problems. Our kids do not, understandably, respond well to lecturing or traditional readings from textbooks as a form of knowledge acquisition. They do respond well to visual presentations and hands-on activities (kinesthetic learning). For this reason, I pride myself and seeking ways to employ interactive technology in my classroom, and often brainstorm with my colleagues on how we can create interdisciplinary units that focus on large scale concepts. Our action research shows that these methods greatly helps my students get a better understanding of the material!

My goal, with this project, is to harness the power of 3D printing to lead previously underperforming students to better understand my 7th grade math curriculum and how it relates to real-world situations! This will also allow students to achieve significant learning gains and / or reach proficiency on standardized assessments, but more importantly they will walk away knowing why and how the concepts learned in class are useful in real life. The most asked question I have from my students "When will we ever need this" will finally be answered. Students will use the 3D printer to model and develop real-world solutions to problem-based learning conundrums; develop 21st century skills through coding and virtual / physical modeling; engage in the engineering & design process; enhance the interactive technology use in my classroom; participate in more cross-disciplinary, STEAM, and International Baccalaureate projects; benefit from a student-driven learning environment within my classroom; and think critically.

This project will allow me to develop projects that target a multitude of standards within the 7th grade math's curriculum such as: Ratios & Proportional Relationships, The Number System, Expressions & Equations, and Geometry.. Furthermore, the examples of envisioned student activities which I have listed below are just the pinnacle of the iceberg! There are many other projects and uses for this awesome tool within the classroom that will reveal themselves are opportunities within instruction arise. My students, colleagues and I will continue discovering and inventing new uses for it as I go along. Using this 3D printer in my classroom will be an absolute joy for my students, it will allow for a more fun and interactive learning experience, and greatly assist their comprehension of my curriculum.

4. What are examples of envisioned student activities?

Some examples of envisioned student activities include the following:

- Idea 1: Students using TinkerCad to design virtual and subsequently print physical manipulatives of angles to identify complementary & supplementary angles. (MAFS.7.G.2.5)

- Idea 2: Students and teacher using TinkerCad to design virtual and subsequently print physical manipulatives of 3D geometric shapes to serve as manipulatives in student projects describing the two-dimensional figure that result from slicing three-dimensional figures. (MAFS.7.G.1.3)

- Idea 3: Students using TinkerCad to design virtual and subsequently print physical components of different project-based learning that involve constructing different shapes, models, and products using angle types and 2D shapes such as triangles, quadrilaterals, polygons, cubes, and right prisms. (MAFS.7.G.2.5, MAFS.7.G.2.6)

- Idea 4: Students using TinkerCad to design virtual and subsequently print "counters" to use in learning how to add and subtract negative and positive numbers. Students will design / print black chips / counters to represent negative numbers and white chips / counters to represent positive numbers. Subsequently, until students are ready to tackle negative number problems and equations, they will use these counters to solve these problems / equations. The solution method involves cancelling out opposite pairs of negative and positive numbers until the remainder is reached, and then the remainder serves as the student answer. (MAFS.7.NS.1.1, MAFS.7.NS.1.2, MAFS.7.NS.1.3)

- Idea 5: Students will participate in a project that involves using TinkerCad to design and then the 3D printer to print different parts of models of balance scales. Students will then use these balance scales to present projects explaining how if you change one side of an equation by a certain amount, then you must do the same to the other side. Students will use these balances to demonstrate solutions to complicated grade-level equation questions. (MAFS.7.EE.2.4)

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- Idea 6: Students using TinkerCad to design virtual and subsequently print physical manipulatives of fraction tiles that will be used in solving negative and positive fraction problems. These materials will also be used in peer-to-peer tutoring groups and differentiated group instruction to remediate prerequisite standards that students may be lacking and scaffold 7th grade material. (MAFS.7.NS.1.1, MAFS.7.NS.1.2, MAFS.7.NS.1.3) In creating these manipulatives, students will have to correctly use measurements and scale conversions, the latter of which is good practice for the (MAFS.7.G.1.1) standard.

- Idea 7: Students using TinkerCad to design virtual and subsequently print out composite & simple 2D and 3D shapes to relate the area of simple shapes to that of composite shapes (MAFS.7.G.2.6); differentiate between triangles, quadrilaterals, polygons, cubes, and right prisms (MAFS.7.G.2.6); and examine the relationship between a circle's radius / diameter and its circumference & area. (MAFS.7.G.2.4)

- Idea 8: Students using various software to design virtual and subsequently print out models of various interdisciplinary, International Baccalaureate, and STEAM project-based learning initiatives. Examples would include 1) "The Parchitechture Project" where students, "using Google Sketch Up, design a student play-area for a new K-8 school. Students have complete control of the design of the space with the stipulation that it must be safe and accessible to all students" (Domains: Expressions & Equations and Geometry), 2) "How Green Is My Roof?" where "students will be designing and then building a 2 ft. by 2 ft. section of a "green roof" for a house" (Domain: Geometry), and 3) "Next Generation Spacecraft – Orion" where students "will decompose the cross section of the Orion Crew Module into smaller shapes to estimate its area" (Domains: Ratios & Proportional Relationships and Geometry). In case these projects seem overly ambitious to the reader, I would like to inform them that Fienberg-Fisher K-8, is required to be, along with all schools on Miami Beach, both an International Baccalaureate and STEAM school. The usage of a 3D printer will greatly assist us in completing more and better PBLs than we currently do, such as the 3 I just described.

- Idea 9: Students using software to design and subsequently print out parts for our already-existing STEAM-oriented Robotics club, which will directly support their academic progress and proficiencies in Math and Science.

- Idea 10: Students using TinkerCAD to design virtual and subsequently print out models of similar shapes to develop an understanding of how scale changes function. E.g. Smaller rectangle to larger rectangle with a focus on the scale factor. (MAFS.7.G.1.1, MAFS.7.G.2.6, MAFS.7.RP.1.2)

- Idea 11: Students / Teacher using TinkerCAD to design virtual and subsequently print out hollow models of 3D shapes. Students will then be able to use these shapes as manipulatives in activities involving filling different manipulatives with the same amount of water to compare & contrast similar and equal volumes. (MAFS.7.G.2.6)

- Idea 12: Students using TinkerCAD to design virtual and subsequently print out models of triangles that represent the Pythagorean theorem as part of a PBL related to the topic. This activity will be used with 7th grade Advanced students as they learn 8th grade standards as well. (MAFS.8.G.2.6)

- Idea 13: Students using TinkerCAD to design virtual and subsequently print out models of different shapes and then use them to make up different composite shapes. (MAFS.7.G.2.6)

- Idea 14: Students using TinkerCAD to design virtual and subsequently print out models as described in the previous activities. However, to reflect the need for students to develop 21st Century skills, they will eventually transition to creating their virtual designs for printing through coding! There will be a steep learning curve throughout this process, where students will print out their products, analyze them, reflect on the process and results, investigate mistakes, and subsequently correct those mistakes with new models. This entire Engineering Process will greatly help us teach and apply the E in STEAM, which is a major target for us at the moment, school-wide.

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5. Projected Timeline: Please provide a list of activities by month, starting in January, to show that the project is well planned.

To simplify this timeline, whenever I am referring to one of the Ideas I outlined in the "envisioned student activities" section, I will refer to it using the "Idea #" format I established above.

January:
- All Periods: Students will be exposed to TinkerCad as the foundation for their construction of virtual designs.
- Robotics Club: Students will be exposed to TInkerCad as the foundation for their construction of virtual designs. (Idea 9)
- Students will start using TinkerCad to virtually design simple "counters" and they will then print them out. They will use these "counters" to learn how to add and subtract negative and positive numbers. (Idea 4) At this time in the year, students will have already been exposed to negative numbers and all Number System standards, so this will be an excellent reinforcing / remediation activity. Students will be encouraged to use the counters they have made to engage in peer-to-peer tutoring activities. Students with a poor comprehension of the material will also be encouraged to take a more active role in the design process, to give them a stake in the learning.
- Advanced Class: 30 minutes a week using Code.org to develop a basic understanding of coding. This will be the foundation for a full implementation of designing their virtual models for printing through code with TinkerCad. (Idea 14)
- Students will use TinkerCAD to design similar pairs of rectangles, squares, trapezoids, etc. Students must make sure that corresponding sides for the pairs of shapes are proportional, allowing for the introduction of the concept of scales and scale factors. This utilization of pre-existing knowledge (Ratios & Proportional Relationships) to frontload (Geometry) standards will allow students to make connections between different portions of their curriculum and strengthen their general mathematics comprehension. After having printed out their designs, the children will physically measure their real-world projects and determine if corresponding sides are, in fact, proportional. If not, it's back to the drawing board! Final products / projects can be displayed at STEAM fairs for parents. (Idea 10)
- Students using TinkerCad to design virtual and subsequently print physical manipulatives of fraction tiles that will be used in solving negative and positive fraction problems. These materials will also be used in peer-to-peer tutoring groups and differentiated group instruction to remediate prerequisite standards that students may be lacking and scaffold 7th grade material. The standards involved will have already be taught, so these activities will be reinforcing and remediating in nature. In addition, in creating these manipulatives, students will have to correctly use measurements and scale conversions, the latter of which is good practice for the current geometry lessons and good frontloading for upcoming geometry lessons. (Idea 6)
- Students will begin working on their IB / STEAM / PBL projects according to (Idea 8).

February:
- Robotics Club: Students will begin using software to design and subsequently print out parts for our already-existing STEAM-oriented Robotics club, which will directly support their academic progress and proficiencies in Math and Science. (Idea 9)
- Students will use TinkerCad to design virtual angle manipulatives.
- Students will participate in a project that involves using TinkerCad to design and then the 3D printer to print different parts of models of balance scales. Students will then use these balance scales to present projects explaining how if you change one side of an equation by a certain amount, then you must do the same to the other side. Students will use these balances to demonstrate solutions to complicated grade-level equation questions. (Idea 5)
- Students using TinkerCad to design virtual and subsequently print out composite & simple 2D and 3D shapes to relate the area of simple shapes to that of composite shapes (MAFS.7.G.2.6); differentiate between triangles, quadrilaterals, polygons, cubes, and right prisms; and examine the relationship between a circle's radius / diameter and its circumference & area. Students will present their projects and products in peer-to-peer learning environments to hel p their classmates. This project will correlate to our addressing these Geometry standards in our curriculum. (Idea 7)
- Students will continue working on their IB / STEAM / PBL projects according to (Idea 8).

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March:
- Regular & ESOL Class: 30 minutes a week using Code.org to develop a basic understanding of coding. This will be the foundation for a full implementation of designing their virtual models for printing through code with TinkerCad. (Idea 14)
- Students will use TinkerCad to design virtual angle manipulatives. This will correspond to their introduction to complementary and supplementary angles in the curriculum. Students traditionally have issues with these abstract ideas, so we will use them in class along with equations and expressions to reinforce the idea that complementary angles add up to 90 degrees and supplementary angles add up to 180 degrees. Students will be careful when designing their products to make sure that their angles are correct in TinkerCad, and the physical manipulatives will allow for varied practice in remediation activities. (Idea 1)
- Students will use TinkerCad to design virtual and subsequently print physical components of different project-based learning that involve constructing different shapes, models, and products using angle types and 2D shapes such as triangles, quadrilaterals, polygons, cubes, and right prisms. Geometry tends to be our weakest-scoring domain in 7th grade. Within Geometry, students find composite 2D and 3D shapes to be impossible. Students will design their own projects with composite shapes, fostering their creativity while allowing them to practice composite shape creation & evaluation in a fun way! Student mistakes will be encouraged as part of fostering a growth-mindset in class. (Idea 3)
- Students using TinkerCAD to design virtual and subsequently print out models of different shapes and then use them to make up different composite shapes. Students will present their composite shapes. (Idea 13)
- Students / Teacher will use TinkerCAD to design virtual and subsequently print out hollow models of 3D shapes. Students will then be able to use these shapes as manipulatives in activities involving filling different manipulatives with the same amount of water to compare & contrast similar and equal volumes. For instance, students must be able to compare the volume of different 3D shapes. Nothing would make that simpler than the physical display of water filling these manipulatives to the same or different levels. In addition, for my Advanced students, they could use these manipulatives to understand that a cone has 1/3rd the volume of a cylinder, and that a pyramid has 1/3rd the volume of a rectangular prism. This corresponds to an 8th grade standard that they have to learn. (Idea 11)
- Students will continue working on their IB / STEAM / PBL projects according to (Idea 8).

April:
- All periods: Students will be given the option of switching over to code to create virtual designs and models on TinkerCad and other software. (Idea 14)
- Students and teacher will use TinkerCad to design virtual and subsequently print physical manipulatives of 3D geometric shapes to serve as manipulatives in student projects describing the two-dimensional figure that result from slicing three-dimensional figures. By allowing them to play around with the virtual drawings in the design process, students will gain a more concrete understanding of 3D shapes. However, actually printing out their designs and letting students handle and slice the manipulatives they created will be an invaluable learning experience! (Idea 2)
- Students will continue working on their IB / STEAM / PBL projects according to (Idea 8).

May:
- Students using TinkerCAD to design virtual and subsequently print out models of triangles that represent the Pythagorean theorem as part of a PBL related to the topic. This activity will be used with 7th grade Advanced students as they learn 8th grade standards as well. (Idea 12)
- Students will continue executing (Idea 14) in independent learning assignments, with greater flexibility and individuality allowed in terms of product as we approach testing season.
- Students will finish working on their IB / STEAM / PBL projects according to (Idea 8).

6. Project Evaluation: How will you determine if your objectives have been met?

The purpose of this project is to strengthen the understanding of 7th grade mathematical concepts independently and as they relate to real-world situations. The success of these objectives will be decided by the following:
- Student FSA scores as compared to last year's
- Student topic assessment, diagnostic, and summative test scores as opposed to last year's
- Production of 5-point STEAM projects / products / lessons utilizing 7th grade math standards.
- Production of top-scoring International Baccalaureate projects / products / lessons utilizing 7th grade math standards.
- Production of interdisciplinary projects / products / lessons including 7th grade math standards.
- Production of Project-Based Learning initiatives / products / lessons targeting 7th grade math standards.

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Grant ID	40
School Level	GRADE 1

Project Specifics

Project title: RAINBOW LIBRARY
Amount requested: $400
Teaching assignment: GRADE 1
Number of students participating: 19
Level of achievement: K-1

Ethnic Breakdown of Program

% Black: 0	**% Hispanic:** 100
% White: 7	**% Other:** 0

Ethnicity of School Distribution

% Black: 1	**% Hispanic:** 92
% White: 7	**% Other:** 1

Project Description

1. **Summary of your project: (one paragraph description of who, what, why and how)**
   Bring bilingual children's books into the homes so that adult family members may read aloud to their children. Students will borrow a children's picture book that is written in Spanish or Bilingual to take home. After reading the book, the adult and child will write a short reaction to it. Upon returning the form and book, a child earns a colorful key chain. Thus, the cycle continues with another book. No program like Rainbow Library exists in my school. Our school library has limited Spanish books even though our population is mostly Hispanic. By offering books in a family's home language, parents and other family members like grandparents can be a part of this reading aloud program. Reading to a child is a prime factor in increasing the child's own success in learning to read.

2. **Why is this project innovative?**
   Reading aloud is very important. Children learn the rhythm of reading, improve fluency, gain interests in various topics, and view their parents as people who appreciate books and reading.

3. **Describe your project in detail.**
   Provide the students with a variety of books to take to their family for a reading program. Each book will come with a gallon size plastic bag and bookmark. This loaner library will also have a cover letter with lines for a signature. When the book and paper are returned, the child will earn a plastic rainbow tag to attach to their book bag. At the end of the school year, a Rainbow party will be held whereby adult family members are invited who participated in this read aloud program.

4. **What are examples of envisioned student activities?**
   Students will listen to books at home. Family read aloud time is very important. Students will chose a book that they want their family to read to them. Most Hispanic families have more than one child, so all children in the household could benefit. Many Hispanic families are extended with grandparents living at home, so many grandparents will be able to participate. Rainbow Books is a unique program that I actually started in late September. Using my own resources to purchase books, rainbow tags, and plastic bags, I have seen this program blossom into a very popular read at home program for my class. Each book has a comment sheet. I have been buying more books every couple weeks to keep up with the demand. This grant would allow the Rainbow Book library to grow even more. Research tells us that reading aloud to child is one single factor that leads to reading success. It does not matter if the language is English or Spanish. The important thing is that the child sees a role model in reading fluency and a family member that respects reading too. Most of my parents do not speak English. Rainbow Books opens the door for them to participate in their child's learning.

5. **Projected Timeline: Please provide a list of activities by month, starting in January, to show that the project is well planned.**
   January-May purchase books each month
   January-May Activate the Rainbow Library. Use the morning unpack time to return and checkout books each day. For some students the book turnover time would be one day, if the family is reading aloud daily. For others, the turnover time might be longer.

6. **Project Evaluation: How will you determine if your objectives have been met?**
   Families would respond to each book with a short comment. Ask the adult family members for comments about the whole program in May. A simple checklist would be sent home. Also keep track of the circulation of books. I already purchased some books with my personal funds. My small library is VERY POPULAR.

7. **Budget Detail: For each item to be purchased with this grant, include (1) where you intend to buy the item; (2) the quantity; and (3) the cost of each item. Please also specify if anything is being provided by others.**

Scholastic Club Leo has the best selection of bilingual and Spanish books for children of this age group (6-8). The titles change each month. Each month, Club Leo, offers a plethora of wonderful books that range from $1.00-$6.00- most books are about $5. Books would be purchased from a variety of genre including picture books, short chapter books, and nonfiction books. This grant will allow the Rainbow Library a selection of about 80 books- with the average cost per book being $5. The cost of plastic zippered gallon bags would be about 10 cents per bag, which comes to $8 which I will also cover personally . I recently bought more rainbow tags for $25, so that cost is covered already with personal funds. A child get a rainbow tag with each book read at home. After I retire next June, the books will be donated to our ESOL teacher for her class library. She works with over 60 students each year. She will continue this lending library with her students.

8. **Total project budget:** $432

9. **Total amount that you are requesting from The Education Fund:** $400

2018-2019 Innovator Grant Application

7. **Budget Detail: For each each item to be purchased with this grant, include (1) where you intend to buy the item; (2) the quantity; and (3) the cost of each item. Please also specify if anything is being provided by others.**

1) NEW CREATOR PRO 3D PRINTER (2016)
A) Source: http://www.flashforge.com/
B) Quantity: 1
C) Cost: $899.00
2) HATCHBOX PLA 3D Printer Filament, Dimensional Accuracy +/- 0.03 mm, 1 kg Spool, 1.75 mm, White
A) Source: Amazon.com Seller: HATCHBOX
B) Quantity: 5
C) Cost: 5 x $19.99 (Total Price: $99.95)
No material is being provided by others.

8. **Total project budget: $998.95**

9. **Total amount that you are requesting from The Education Fund: $998.95**