## **PROPOSAL COVER SHEET**



Project Statement (100-word limit):

The goal of this grant is to provide mathematical instruction through the use of robotics to our Gifted and Talented students to improve their PARCC (mathematics) scores. The long-term goal is to build our robotics, and computer science programs in our secondary schools. To accomplish this goal, we will develop mathematics lessons on measurements, units and unit conversions based on the mathematics standards for grades 4 and 5. A robotics club will also be offered to all students in grades 3-5 to promote mathematics, robotics and programming in all 17 elementary schools.



Superintendent of Schools for

Date

### **Project Abstract**

"Research suggests that children engaging with programming robots to move have the opportunity to explore spatial concepts, problem-solving, measurement, geometry, and engage with meta-cognitive processes."<sup>1</sup> Robots and programming are exciting ways to help students learn abstract concepts in math along with teaching students skills associated with STEM education.<sup>2</sup> The concepts of measurement, units and unit conversions, are abstract concepts that cause difficulty for many elementary students. To help students improve their skills on this math concept, robots are an excellent tool to use to visualize these abstract concepts.<sup>3</sup>

Math scores on the PARCC Assessment for our elementary school students are below state average. Resources were provided to help improve scores but additional resources are required. At the same time, the new Maryland Integrated Science Assessment is occurring in grade 5, which includes Science Concepts, Science and Engineering Practices, Crosscutting Concepts, and Engineering Design. Robotics is a tool to help students with these concepts, along with teaching students STEM skills. This grant will help bring robotics to all 17 elementary schools Gifted and Talented (G/T) students in grades 4 and 5 during the first semester. Students will have additional instruction on two math concepts where they have scored below the state average on PARCC Assessments. In the second semester of the school year, these robots will be used for robotics clubs open to students in grades 3-5.

be the advisor for this grant. She will work with teachers assisting them with the application of math through the movement of the robots. **Constitution** have collaborated over the last 10 years. This partnership provides professional development for our teachers, mentors for our students, and space at the college for our countywide middle school robotics competitions.

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ii

# **Table of Contents**

6.5

1.0	Propo	osal Cover Sheet	i
2.0	Proje	ct Abstract Page	ii
4.0	Proje	ct Narrative	
	4.1	Extent of Need	
	4.2	Goals, Objectives, and Milestones	
	4.3	Plan of Operation	
	4.4	Evaluation and Dissemination Plan	
	4.5	Management Plan/Key Personnel	
	4.5.1	Management Worksheet	
	4.5.2	Project Time Line	
	4.6	Integration with Education Reform	
	4.7	Future Plans	
5.0	Budge	et Narrative	B-1-2
	5.1	Line Item Listing of Budgetary Expenses	B-3
	5.2	Itemized Budget Form	B-4
6.0	Appe	ndices	
	6.1	Works Cited	Appendix A
	6.2	Letters of Commitment	Appendix B-I
	6.3	Resumes of Key Personnel	Appendix J-P
	6.4	Signed Assurances	Appendix Q

LEA Documentation .....Appendix R-BB

### 4. Project Narrative

### 4.1 Extent of Need

County Public Schools **County**, as with many LEAs, is working to build students who are literate in Mathematics and Science. To date, **County** students are showing improvement on the PARCC Mathematics scores but there is still room for growth. The mathematics scores in grades 3-5 in **County** are below the state average. The gap between the state average and the average in **County** Public Schools increases at each grade level (grades 3-5). This deficit is clearly seen in figure 1 below. The opposite is true in grades 6 and 7 where the county average is above the state average. This data clearly shows that **County** students in grades 3-5 are not performing as well in mathematics as their peers are doing around the State.

Grade Level	State	Difference
Grade 3	43.0%	
Grade 4	37.5%	
Grade 5	35.5%	
Grade 6	32.2%	
Grade 7	25.4%	
Grade 8	16.8%	

#### 2017 PARCC Mathematics Data - Students scoring at a 4 or 5

## Figure 1

The Mathematics scores on the PARCC Assessment for our elementary school students (grades 3-5) have shown an upward trend over the past few years (figure 2). Students that scored a 4 or greater on the assessment over the past 3 years (2015, 2016 2017) in grade 3 were 29.7%, 35.0% and 41.8% respectively, in grade 4 they were 26.2%, 24.5% and 35.7% respectively and in grade 5 they were 22.4%, 22.9% and 32.5% respectively. This has largely been accomplished through the ENVISIONS mathematics program adopted by the county a few years ago. Even though our scores are trending upwards, at the same time this also means that in 2017 58% of the grade 3 students were not reaching the proficient level, in grade 4, 65% are not reaching the proficient level and in grade 5, 68% of the students are still not at the proficient level. A majority of our grade 3-5 students are not at the proficiency level in mathematics. Additional

resources are needed in grades 3-5 to help overcome this situation. This grant will help address this problem in our elementary (grades 3-5) mathematics program by offering additional resources for students to learn mathematics.

The scores at the individual grade level are trending upward but the percentage of students scoring at the proficiency level is going down at each grade level in grades 3-5. The opposite trend is occurring in grades 6-7 where student proficiency is going up at each proceeding grade level. (See Figure 2).

Grade Level	2015 2016 2017		2017			
MAT03						
MAT04						
MAT05						
MAT06						
MAT07						
MAT08						

Math PARRC Data scoring a 4 or greater

#### Figure 2

According to our Winter NWEA-Maps scores. Our elementary score distribution for grades 4 and 5 in the Measurement and Data strand indicate that almost 50% of our students scored in the low range. (See figure 3 below).

Strand	Low	Avg.	High
Measurement and Data Grade 4			
Measurement and Data Grade 5			

Figure 3

This is not an uncommon problem. Many school systems across the country are also working on improving students understanding of this concept. Students have a difficult time with this standard due to its abstract nature.

This same problem was also noticed in the PARCC data from last year's PARCC Assessment. According to PARCC, last year's state assessment, our 4<sup>th</sup> and 5<sup>th</sup> grade students perform at or slightly below the state average on questions that require them to solve multi step contextual problems with a degree of difficulty appropriate for 4<sup>th</sup> and 5<sup>th</sup> grade students. These problem types are indicated by evidence statements 4.D.2 and 5.D.2 in the graphs below.

#### **GRADE 4 MAPS Data**

Students with Valid Scores (1144)



### Grade 5 MAPS Data

Students with Valid Scores (60)

Purpose: This report presents the average percent correct by Evidence Statement for school, district, state and Cross-State.



Based on the elementary school MAPS and PARCC data, the question we must ask is, what can be done to raise our student's scores in the elementary schools in order to prepare students for middle school mathematics and eventually for the Algebra 1 graduation assessment in high school?

		4 or greater			3 or greater	
	2015	2016	2017	2015	2016	2017
HS Total		1 7				

## Algebra 1 PARCC Data for High School

#### Figure 3

The graduation requirement for ALL Maryland High School students in Mathematics is a score of a 3 or higher on the current PARCC assessment. Over the next few years that score will increase to a 4 or greater. The PARCC data in Figure 3 illustrates how students have done on the 9<sup>th</sup> grade Algebra 1 PARCC Assessment over the past few years. According to this data approximately, 66% of these students received a score of 3 or greater demonstrating proficiency in mathematics, however; when the proficiency requirement becomes a 4 or higher only approximately 28% of those students would have been scored proficient. That is almost a 40% difference between those scoring at the 3 level and those scoring at the 4 or greater level. That 40% equates to approximately 460 students in that would not be considered proficient and who would not have passed the mathematics graduation requirement. The work to change this forecast must begin in elementary school. Additional resources are needed in our elementary mathematics program to address this issue and begin to bring about the change required to better prepare our students for success on the Algebra 1 graduation assessment. Developing Gifted and Talented lesson plans to address the mathematics standards in grades 4 and 5 will help support what students are already learning in their regular mathematics classroom. The use of robots will assist students learn and comprehend the abstract concepts of units and measurements. Once these lessons are developed, they will also be used during the robotics clubs at these same schools. These clubs will be open to all students in grades 4 and 5.

## 4.2 Goals, Objectives, and Milestones.

## Mathematics Standards Addressed in the Grant

**4 MD 2** – Use the four operations to solve word problems involving distance, intervals of time, masses objects

**4 MD 4** – Make a line plot to display a data set of measurement in fractions of a unit.

**5MD 1** – Convert among different sized standard measurement units within a given measurement system and use these conversions in solving multi step real world problems

**5MD 2** – Make a line plot to display a data set of measurements in fractions of a unit.

**Goal 1**: 85% of students (grades 4 and 5) will show growth as measured at the end of the unit by the pre and posttest assessment data on converting units of measure both from smaller to larger and larger to smaller in context.

**Goal 2**: 100% of students (grades 4 and 5) will use the EDP process to solve real life situations using their robotics kits as indicated by the Data recording sheets gathered throughout the unit. (The Engineering is Elementary Engineering Design Process – Ask-Imagine-Plan-Create-Improve).

**Objective 1:** 4.5 weeks into the unit 85% of students will understand how to convert from a larger to smaller unit out of context.

**Objective 2:** 4.5 weeks into the unit 100% of students can define the EDP process and how it was used in a sample real world problem.

## **Curriculum Milestones:**

- Curriculum Based- Develop a curriculum for 4<sup>th</sup> and 5<sup>th</sup> grade identified gifted and talented (GT) students.
- Define Unit Timeline(s) and create a unit(s) of study –what tasks will be included? GT and Club participants include lesson plans and Develop an end of unit evaluation.
- Create pre and post assessment for unit conversion data for both GT and club participants to include MAPS scores throughout the year.
- Develop a pre and post task for EDP process that will include a planning sheet for each problem or task given throughout the unit.

### 4.3 Plan of Operation

The use of robotics to support mathematics instructions requires strong curriculum writing, teacher professional development and good instruction, otherwise you will have students playing with robots and not learning mathematics.<sup>1</sup> The curriculum written for the Gifted and Talented program will be based on the mathematics standards 4 MD 2, 4 MD 4, 5 MD 1 and 5 MD 2. This curriculum will be written during the first part of June 2018 while the G/T coaches are still working. This will ensure that the curriculum is ready to use beginning in October 2018 and continue each year after the grant ends, making this a sustainable project. The county will pay for this curriculum work to move this program forward whether funding for this grant is secured or not. Part of the curriculum writing will be the development of a pre and post assessment to use as an evaluation of the program/lessons. The lessons designed for the G/T students will consists of mathematical problems/challenges requiring students to use their knowledge of units and measurements along with developing the skills associated with the workforce needs of 21st Century and the county's STEM initiative. The lesson developed will be based on the 4<sup>th</sup> and 5<sup>th</sup> grade mathematics standards listed in 4.2 Goals, Objectives, and Milestones. These lessons will be implemented during the first semester September 2018-Januray 2019. Modified lessons will be implemented in the Robotics club phase of this program during second semester February – May 2019. Training for the G/T Coaches will be provided in two ways. Over the summer months, the G/T coaches will use Code.org to learn basic programming. These G/T Coaches will also have the opportunity to take one of the robot kits home with them for the summer and begin familiarizing themselves with the WeDo 2.0 Lego Robot and programming. Some of these kits have been ordered using existing end of year county science funds (June 2018). In August 2018, during the county's Professional Development, teachers will have hands-on training from one of the county's robotic experts

available throughout the school year to offer assistance to these coaches as needed. Once this training occurs, these teachers will be able to continue the project in the years to come, once again making this project sustainable.

or our College advisor . These experts will be

The G/T students will have time dedicated to this program during the first semester of the new school year. The second semester of the school year, the robots will be made available to all students in grades 3-5 as part of a robotics club. This club may occur before school, during school hours, or after school, depending upon which time slot best suits the school and the school's transportation availability. This will all support the first goal of the project; 85% of students will show growth as measured at the end of the unit by the pre and posttest assessment data on converting units of measure both from smaller to larger and larger to smaller in context.

The second goal of this project is for 100% of students will use the EDP process to solve real life situations using their robotics kits as indicated by the Data recording sheets gathered throughout the unit. (The Engineering is Elementary Engineering Design Process will be used during this project and is being used with all students in grades K-5 – Ask-Imagine-Plan-Create-Improve).

Funding is also being requested to continue the work started in last year's Robotics grant. The countywide robotics competition was well received and gave us good data on student interest for high school computer science courses. Only 50 % of these students stated they were highly likely to take a computer science/programming or robotics course in high school. The competition also excited students about robotics and created a greater awareness for computer science, robotics and programming. Many of the students that attended this event showed interest in future robotic clubs and events. Funding from this new grant will help to keep that competition going next school year (June 2019)

## 4.4 Evaluation and Dissemination Plan

The evaluation for this project will occur as a pre and post growth assessment. The preassessment will be given during the first lesson (October 2018). The post-assessment will be given during the final lesson of the robotics program (January 2019). A mid unit check will be given during the midpoint of the first semester. The student's MAP test scores will be checked during the school year to determine if progress is also being made in the classroom. This will help determine if the robotics mathematics program is having an impact on student success in the classroom. The same pre-assessment and post assessment will be given to students participating in the robotics club. A comparison of their MAP scores before participating in the club and at the end of the school year will be compared to determine, if possible, if the mathematics robotic program had a positive effect on the student's mathematics scores for the mathematics standards addressed in this program.

## 4.5 Management Plan/Key Personnel

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Program Personnel	Responsibilities	Qualifications	Time Dedicated to Project
	Program Director	Coordinator for Science and STEM	As needed
	Mathematics integration and implementation	Coordinator for Elementary Mathematics	As needed
	Ensure student IEP expectations addressed as needed	Coordinator for Special Education	As needed
	Advisor	Professor of Physics, Engineering and Geosciences Cecil College	As needed
	Assist with implementation of this program	Instructional Coach for STEM	As needed
	Robotics advisory and trainer	Math Teacher and FLL coach at Perryville Middle School	As needed
	Robotics advisory and trainer	Math Teacher and FTC coach at Bohemia Manor High School	As needed
Gifted and Talented Coaches	Coordination and implementation of the program at individual elementary school	G/T Coaches	Weekly lessons G/T students; monthly/ quarterly club meetings
Principals	Provide time and support for the robotics program in their school building. Monitor access for all students in their building.	Elementary Principals	As needed

## **4.5.2 Project Timeline**

Task	Timeline	Person Responsible
Distribute Kits to 17 schools	Upon receipt	STEM Program Coordinator,
Curriculum and lesson plan	June 2018	STEM program Coordinator,
development, pre and post assessment		Instructional Coordinator for Mathematics, Dr.
development		College Advisor, G/T Coaches
Conduct Professional Development	August 2018	STEM program Coordinator,
with GT Teachers		Instructional Coordinator for Mathematics,
Administer Pre Test Data	October 2018	G/T Coaches
Mini unit on EDP process	October 2018	G/T Coaches
Mid unit checkpoint	November 2018	G/T Coaches
Gather end of unit data for both goals	January 2019	G/T Coaches
Evaluate the program	January 2019	STEM program Coordinator,
		Instructional Coordinator for Mathematics,
Redistribute Kits for club use within	February 2019	Instructional Coordinator for Mathematics,
same school		and school principals
Pre-assessment to new club	February 2019	G/T Coaches
participants	-	
Robotics Club participation	February – May	G/T Coaches
	2019	
Post-assessment	May 2019	G/T Coaches
Evaluation of the robotics club	June 2019	STEM program Coordinator,
		Instructional Coordinator for Mathematics,

## 4.6 Integration with Education Reform

Robotics is an excellent vehicle for implementing the Engineering Design portion of the NGSS along with meeting many of the STEM initiatives and the 21<sup>st</sup> Century Job Skills. Problem solving and collaboration are key to both the STEM initiative and the Job Skills required by many businesses today and in the future. Robotics requires both of these skills and many more. Mathematics is still heavily assessed in grades 3-8, Algebra 1 and Algebra 2. Maryland still has a mathematics (Algebra 1) graduation requirement and continues to have a College and Career Readiness assessment. Building strong math skills in the elementary grades will only help to support the math effort across all grade levels. The new Maryland Science Standards have been implemented and are now being assessed through the new Maryland Integrated Science Assessment (MISA). The engineering design process is an important part of those standards. This program also supports the technology plan for programming in elementary schools, the PLTW Gateway Program in middle school and the new computer science program in our high schools. In the future, we hope to expand the robotics program from just the Gifted and Talented Program or school club into a method for teaching mathematics to all elementary grade levels.

## 4.7 Future Plans and Sustainability

This grant will open the door for robotics as a way for enhancing the mathematics, science and STEM programs in our elementary school classrooms.<sup>5,6</sup> Teacher engagement and excitement is a must for this program to move forward. As teachers become more comfortable with using robots with students, the more opportunities for using robots to teach mathematics will occur. This should generate additional mathematics lessons written by teachers using robots to teach difficult mathematics concepts to these young students. Teacher comfort is a key for future use of these robots which will make the program sustainable over time. Making lesson plans and developing curriculum to use with these robots will help to insure that this project continues long after the grant ends. The biggest hurdle is the training of teachers and the purchasing of the initial set of equipment. This grant will help **set and the set of equipment** train teachers and purchase equipment laying the foundation for using robots as a vehicle for delivering instruction in multiple ways reaching students with different learning styles. The equipment purchased through this grant along with county science funds will begin to develop our robotic program in the elementary school. The materials used in this project are not consumable so they will be used by different grades over the next few years. In time, schools can choose to purchase additional and more sophisticated equipment for future use. Some schools may choose to use the robotics club as a launch pad for the First Lego League (FLL). This elementary robotics program will also excite students for continuing with robotics at the middle school and hopefully at the high school level.<sup>5,6</sup> These students may become our future First Tech Challenge (FTC) team members. Some elementary students may even develop a newfound appreciation for robotics and mathematics; we can only hope.<sup>7</sup>

#### **Project Budget Narrative**

The project budget has been setup with 4 categories: Salaries & Wages, Enrollment and Memberships, Transportation and Equipment and Supplies. The overall requested amount of this grant is **\$11,096.00**. The in-kind match from the county will be approximately \$39,967.00. The first section of the budget is in regards to **Salaries and Wages**. The substitute request is for 1 teacher from each of the 5 high schools and 1 teacher from each of the 6 middle schools to come together and host the countywide competition to be held in June 2019 at **College**. These teachers involved in this competition will be from science, mathematics or CTE. There will be a planning meeting with these teachers and **College** Professor, **County** Public Schools funds for the planning of the robotics competition. We are requesting the grant cover substitutes for these teachers when they bring their students to this countywide robotics competition. The cost for the Gifted and Talented (G/T) Coaches to do the curriculum writing for the elementary program will be paid for using **College**. The amount requested in this grant for substitute wages for 11 teachers, 1 from each school, for the robotics competition would be approximately **\$1080.00**.

The next section of the budget has to do with **Enrollment and Membership fees for Robotic Competitions**. County Public Schools already has 2 First Tech Challenge (FTC) teams, which need support to enter FTC competitions in Maryland and Delaware this coming year. The fees for most of these events are \$125 per team per event. There is a regional event held in Delaware that requires a fee of \$250. The teams would like to attend 2 state events and the regional event in Delaware. Middle School started a robotics club last year along with a First Lego League (FLL) and would like to participate in the First Lego League again. There is a Team registration fee of \$225 and competition fees of \$200. The teacher in charge of this club has participated in the past in the FLL events and believes this school could have a team ready to participate in the FLL competitions by late fall. We are requesting in this grant a total of **\$1150.00** in enrollment and membership fees for these three school teams to participate in the FTC and FLL competitions during the 2018-2019 school year. Another expense we are requesting funding for in this grant is to provide **Transportation to and from Robotics Competitions** for these teams to attend robotics competitions. Where possible, teams will share a bus to these competitions to help reduce transportation cost. The cost for a bus to pick up students around 5:30 AM in the morning and return them to the school around 5:30 PM that evening can be expensive. In addition, most of the competitions are over 1.5 hours away, which equates to high mileage charges by the bus company. We are also requesting funding to help pay for the cost to transport students from their home school to

College for the countywide robotics competition being held at College sometime in June 2019. We will have the middle school and local high school share the same bus as a way to limit this cost. The total transportation cost requested is **\$1600.00**.

The **Equipment and Supplies** section shows the equipment required to bring the elementary Mathematics and Robotics project to fruition. The Lego WeDo 2.0 robots will be used to help students learn abstract mathematics concepts. This equipment will be used with Gifted and Talented (G/T) students during the first semester of the year and then be available to use during the second semester in a robotics club open to all students grades 3-5. The equipment requested are the Lego WeDo 2.0 core sets. The county is purchasing 30 of these units plus 15 charges (in-kind spending) this June so training on using these units can begin this summer. These units, the training and the curriculum writing are all being paid for from County School Funds. The grant will be used to purchase an additional 30 Lego WeDo 2.0 core sets and 15 chargers. This will allow each elementary school to have either 3 or 4 units depending upon their school enrollment. There will be 1 charger provided for every 2 Lego WeDo units. We are requesting **\$7048.00** from the grant to purchase these Lego WeDo 2.0 core sets and chargers. As the program grows each school will be asked to purchase additional units to help make this grant sustainable in the future.

The final portion of the budget is the administrative fee of approximately **\$218.00** and the fixed charges of approximately **\$80.00**. This brings the grant requested amount to **\$11096.00**. The in-kind cost of this grant is **\$39,967.50**.

B-2

# **Budget Narrative**

Line Item	Calculations	Requested	In-Kind	Total
Salaries & Wages				
Program Coordinator Science and STEM	3 days @ \$500/day	-	1,500.00	1,500.00
Elementary Mathematics	3 days @ \$500/day	-	1,500.00	1,500.00
G/T Coaches (15)	Curriculum Writing 5 days @ \$350/ day		26,250.00	26,250.00
Substitutes for County Competition (20)	20 Substitutes for 1 day at \$100/day	1,000.00	1,000.00	2,000.00
Subtotal Salaries		1,000.00	30,250.00	31,250.00
Fixed Charges	Fixed costs at 8%	80.00	2,420.00	2,500.00
Total		1,080.00	32,670.00	33,750.00

## Enroliment and Membership in Robotics Related Competitions

Total			1,150.00	-	1,150.00
competition	FLL team	Registration and entry fee	400.00	, <b>-</b>	400.00
	FTC team competition	3 events at \$125/event	375.00	-	375.00
competition	FTC team	3 events at \$125/event	375.00	-	375.00

## Transportation to and from Robotics Competitions

Total		1,600.00	250.00	1,850.00
competition	4 buses at \$150.00 per bus	800.00	-	000.00
Transportation for countywide	4 buses at \$150.00 per bus	600.00		600.00
FLL Team Competition	2 events at \$125.00/event	-	250.00	250.00
FTC Team Competition	High School 2 events \$500/event	1,000.00	-	1,000.00

#### **Equipment and Supplies**

WeDo 2.0 Core Set	60 sets at \$189.95	5,699.00	5,698.00	11,397.00
WeDo 2.0 Add-on Power Pack	30 sets at \$89.95	1,349.00	1,349.50	2,698.50
Total		7,048.00	7,047.50	14,095.50

## Administrative Fee

Indirect fee - state funds 2% of the direct budget of \$10,878		218.00		218.00
Grand Total		11,096.00	39,967.50	51,063.50

## MARYLAND STATE DEPARTMENT OF EDUCATION GRANT BUDGET C-1-25

ORIGINAL GRANT BUDGET	\$11,096.00	AM ENDED BUDGET #	n/a		REQUEST DATE	06/15/18
GRANT NAME	FY19 Robotics Program Grant	GRANT RECIPIENT	County Public Sch	ools		
M SDE GRANT #	n/a	RECIPIENT GRANT #		13419		
	Robotics Program	RECIPIENT AGENCY NAME	County Public Sch	ools		
FUND SOURCE CODE	2889 (S)	GRANT PERIOD	7/1/2018	·	6/30/2019	
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	BUDGET OBJECT						
CATEGORY/PROGRAM	01- SALARIES & WAGES	02 - CONTRACT SERVICES	03- SUPPLIES & MATERIALS	04 - OTHER CHARGES	05 - EQUIPMENT	08 - TRANSFERS	BUDGET BY CAT./PROG.
201 Administration							
Prog. 21 General Support	C Billing Brownst	esta contra c	nic rijoto u curvi			17.4412.511.5121.5121.5121.5121.5121.5121.	0.00
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Prog. 23 Centralized Support							0.00
202 Mid-Level Administration							
Prog. 15 Office of the Principal							0.00
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203-205 Instruction Categories							
Prog. 01 Regular Prog.	1,000.00		7,048.00	2,750.00			10,798,00
Prog. 02 Special Prog.					-2. (C. 2.) (C. 2.)		0.00
Prog. 03 Career & Tech Prog.							0.00
Prog. 04 Gifted & Talented Prog.					The state of the s		0.00
Prog. 07 Non Public Transfers							0.00
Prog. 08 School Library Media							0.00
Prog. 09 Instruction Staff Dev.							0.00
Prog. 10 Guidance Services							0.00
Prog. 11 Psychological Services						VINCTURE OF SECOND SECOND SECOND	0.00
Prog. 12 Adult Education							0.00
206 Special Education							
Prog. 04 Public Sch Instr. Prog.	an a				Stars we are the start with		0.00
Prog. 09 Instruction Staff Dev.							0.00
Prog. 15 Office of the Principal							0.00
Prog. 16 Inst. Admin & Superv.							0.00
207 Student Personnel Serv.							0.00
208 Student Health Services			A MAIN OF MALE AND A MAIN AND A MA			Mr.Shi Hanada ada ada	0.00
209 Student Transportation					, loin Litter er Gront Ital Kassian 1	i Sectoria, al Aliserati e de la companya de la com	0,00
210 Plant Operation							
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211 Plant Maintenance							0.00
212 Fixed Charges				80.00			80.00
214 Community Services							0.00
215 Capital Outlay							
Prog. 34 Land & Improvements							0.00
Prog. 35 Buildings & Additions							0.00
Prog. 36 Remodeling							0.00
Total Expenditures By Object	1,000.00	0.00	7,048.00	2,830.00	0.00	218.00	11,096.00

Finance Official Approval				
Nan	ne		Date	Telephone #
Supt./Agency Head				
Approval				<b>-</b>
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MSDE Grant Manager				
Approval		[2] Bara Landard M. Markara, A. M. 1997, A 1997 (1997) Million Science and Application Science and Application Science and Applications (Neuropean Science) (Neurop		
Nan	ne	Signature	Date	Telephone #

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#### RECIPIENTASSURANCES



By receiving funds under this grant award, I hereby agree, as grantee, to comply with the following terms and conditions:

1. Programs and projects funded in total or in part through this grant shall operate in compliance with State and federal statutes and regulations, including but not limited to the 1964 Civil Rights Act and amendments, the Code of Federal Regulations (CFR) 34, the Elementary and Secondary Education Act, Education Department General Administrative Regulations (EDGAR), the General Education Provisions Act (GEPA) and the Americans with Disabilities Act (ADA). Vendors, subgrantees, and/or consultants; including officers and employees shall comply with the Family Educational Rights and Privacy Act at all times (20 U.S.C. §1232g).

2. Grantee shall assure that its facilities are accessible to individuals with disabilities as required by the ADA and applicable regulations. The grantee shall not discriminate against individuals with disabilities in the provision of its services and programs unless to do so would be an undue burden or result in fundamental alteration in the program as those terms are used in the ADA and its implementing regulation. The State reserves the right to inspect the grantee's facilities at any time to determine if the grantee is in compliance with ADA. The grantee shall bear sole responsibility for assuring that its programs conforms for the section 501c. of the ADA (42 USC 12201) as a bons fide benefit plan. The grantee shall indemnify and hold the State harmless in any administrative proceeding or action brought pursuant to the ADA for all damages, attomeys' fees, litigation expenses and costs, if such action or proceeding arises from the acts of grantee, grantee's employees, agents or subgrantees.

3. By accepting federal funds, the recipients certify that they have complied with Federal Executive Order 12549, Debarment and Suspension set forth in 2 CFR §180, and that, a signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion form has been filed with Maryland State Department of Education Project Monitor.

4. Grantee shall establish and maintain fiscal control, fund accounting procedures by fund, as set forth in 2 CFR §200 and in applicable statute and regulation. By accepting federal funds, the recipient agrees that the amount of the grant award is contingent upon the receipt of federal funds. Grantee shall retain all records of its financial transactions and accounts relating to this grant for a period of five years, or longer if required by federal regulation. Such records shall be made available for inspection and audit by authorized representatives of MSDE.

5. Entities expending federal funds of \$750,000 or more in a single fiscal year, must have an annual financial and compliance audit in accordance with 2 CFR Subpart F 200.500 et, seq.

6. The Maryland State Department of Education (MSDE) may, as it deems necessary, supervise, evaluate and provide guidance and direction to grantee in the conduct of activities performed under this grant. However, MSDE's failure to supervise, evaluate or provide guidance and direction shall not relieve grantee of any liability for failure to comply with the terms of the grant award.

7. Grantee shall adhere to MSDE reporting requirements, including the submission of all required reports. Failure to submit complete, accurate, and timely progress and final reports may result in the withholding of subsequent grant payments until such time as the reports are filed.

8. Grantee must receive prior written approval from the MSDE Program Monitor before implementing any programmatic changes with respect to the purposes for which the grant was awarded. Unless a division implements a stricter policy, grantee must receive prior written approval from the MSDE Program Monitor for any budgetary realignment of \$1,000 or 15% of total object, program or category of expenditure, *whichever is greater*. Grantee must support the request with the reason for the requested change. Budget realignments must be submitted at least 45 days prior to the end of the grant period.

9. Requests for grant extension, when allowed, must be submitted at least 45 days prior to the end of the grant period.

10. Grantee shall insure that programs and projects that offer web-based or technology band instructional products or programs which are funded in total or in part through this grant will operate in compliance with Section 508 of the Federal Rehabilitation Act of 1973 as amended and Section 7-910 of the Education Article, Amotated Code of Maryland.

11. Grantee shall repay any funds that have been determined through the federal or State audit process to have been misspent, misapplied, or otherwise not properly accounted for, and further agrees to pay any collection fees that may subsequently be imposed by the federal and/or State government. The repayment may be made by an offset to funds that are otherwise due the grantee.

I further certify that all of the facts, figures and representations made with respect to the grant application and grant award, including exhibits and attachments, are true and correct to the best of my knowledge, information, and belief.

21 | Page

Appendix Q