

Supt.'s Office Use Only	
2-20-07	
Board Meeting	_____
Agenda	Consent _____
Item No.	H. 9.

Board Meeting Date:	February 20, 2007
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Submitted By:	Donna Omer
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Item Description:	Gifted Challenge Grant
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Purpose and Explanation:

Background
 Gifted Challenge Grants of up to \$10,000 are available on a competitive basis to school districts. The purpose is to coordinate efforts to improve higher student learning and enhance the academic performance of students who are gifted through the innovative redesign of instruction and collaboration to develop greater knowledge and intellectual skills through challenging activities.

Summary
 A proposal has been prepared to redesign the American History economic/financial units at Bishop Middle School and Westwood Middle School.

BUDGETARY IMPACT

Funding Source (Description): State Grant Funds	Amount: \$9,891
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Staff Attorney Review & Approval (For Contracts Only)	Date: _____ Initial: _____
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ADDITIONAL INFORMATION
Yes: _____ No: _____

Abstract:

The *Financial Wizards* project is intended to enhance the learning of gifted students through redesign of curriculum and incorporation of project-based learning components. The project features hands-on experience in solving financial problems, parallel instruction, increased technology infusion, and electronic collaboration between two gifted classes. Eighth-grade students from two district schools will work together online to analyze news, research the market, and participate as teams playing the Internet *Stock Market Simulation* game. Approximately 200 gifted students will be involved. The project will be evaluated through participant portfolios and through student and teacher surveys. This project has not previously received Challenge Grant funds.

1. Need:

According to the State Board of Education, gifted students are those who are deemed capable of high performance at *all* levels of learning. It is expected, therefore, that the vast majority of gifted students should score in the above-average ranges for FCAT (that is, above level three). Alachua County school district staff used 2006 FCAT data to examine the achievement performance of the gifted 8th-grade population at both Howard Bishop Middle School and Westwood Middle School. As shown in the following table, data analysis indicates that there is significant room for improvement in general achievement levels with a surprising number of gifted students scoring only at grade level or below.

***2006 FCAT Mathematics and Reading:
Percentages of 8th Grade Gifted Students Scoring Grade Level or Below***

School	Reading	Mathematics	Science
Howard Bishop Middle School	53	26	63
Westwood Middle School	55	16	66

Clearly, there is a need to raise the achievement of these

“underperforming” students. Providing a learning environment in which students are highly engaged and challenged to perform at the highest levels both in the core curriculum and in the “gifted” classes seems to provide one solution to less-than-ideal academic performance. To be sure, research suggests that by redesigning the way instruction is delivered in today’s classrooms, we may find ways to push students more effectively to their full potential. Moreover, the learning process itself should meet the requirements of today’s students who are far more sophisticated in their needs for innovative instructional delivery and inquiry-driven learning. Greater focus must be placed on designing student-centered activities in which today’s digital technology plays a significant role.

In examining instructional presentation and investigating ways that more innovative strategies could be utilized, district staff analyzed data on the use of digital media in the classroom. According to the Florida School Technology and Readiness (STaR) survey for Alachua County (05-06), 71.43% of all district middle-school students use technology—but primarily as a research (via the internet) and presentation tool. Observations at the school level reveal that students at both Howard Bishop and Westwood Middle schools also use technology in this manner. However, technology as a teaching and learning tool, it is believed, can be used more effectively when it is integrated fully into the classroom and becomes not just a tool for web searches and presentation but a tool for inquiry, communication, collaboration, data analysis, problem solving, and so on.

Design of this project takes the need to change the way technology is used into account and provides for greater digital infusion throughout a redesigned unit of study. But instructional redesign goes beyond mere digital infusion. Concern also exists for increasing student interest and involvement and for creating a classroom environment in which student-centered learning predominates. As a result, program design staff also reviewed the methods of instruction in the gifted History classes at Howard Bishop Middle and Westwood Middle Schools. It was found that traditional “teacher-centered” instructional methods were generally the norm. Students are exposed to materials mainly through lectures and teacher demonstrations. Many activities are task-oriented and require little inquiry-based, cooperative student participation.

The need to **redesign the delivery** of existing units of study is thus derived from an imperative to raise student achievement through greater infusion of technology, modernized instructional delivery, and the needs of a new generation of gifted middle school students. Gifted students, particularly, require courses that emphasize the development of higher levels of thinking, self-directed learning, a positive self-concept, interpersonal relationship skills, and creative thinking. Further, these students are drawn to computers, video, and interactive means of instruction and are natural “digital learners.” Yet they need to be taught to use technology to collaborate, to propose, to assess, and to implement solutions to real-world problems in an effective manner. Achievement in all areas, it is believed, will improve as students become more engaged in their classes. In addition, students will gain skills that they will need to function effectively in the modern world.

2. Project Design and Implementation:

A. Overview:

Each year, 8th-grade gifted students at both Howard Bishop and Westwood Middle Schools take an American History/Economics class. At Howard Bishop Middle, this class contains a twelve-week “Stock Market” unit in which the class studies economic issues and participates in the *Stock Market Simulation* game. Traditionally, this has been a self-contained unit of study where one teacher and his class follow a prescribed curriculum, complete worksheets, and check the “Simulation” web page regularly to research, buy, and sell stocks in a hypothetical portfolio. Students are exposed to material mainly through lectures and teacher demonstrations. Westwood Middle School does not offer the Stock Market unit as part of its class at this time.

Project designers envision an opportunity, through **redesign** of this unit, to integrate technology into the curriculum, create project-based activities and inquiry-based modes of learning, provide hands-on experience in solving financial problems, and to build cooperation and digital communication skills among the gifted students at two schools. The redesigned Stock Market unit entitled ***Financial Wizards*** will be offered at both middle schools to the gifted 8th-grade History/Economics classes.

The **redesign** will feature collaboration between gifted students at the two middle schools through the establishment of “virtual” teams. Students will have the opportunity to electronically work in partnership and exchange information learned during the Internet *Stock Market Simulation* and to work together to address situations and solve problems in a real-world scenario. They will use *Google: Documents and Spreadsheets* for this collaboration. *Google: Documents and Spreadsheets* is a free resource from Google.com that allows participants to share and edit documents and spreadsheets online. *Google: Documents and Spreadsheets* allows the teachers to limit participants (only middle school students from both schools will be invited to share and edit documents), and documents are not posted on the Internet for all to see, as in the case of blogs or wikis. Also, these documents are “trackable,” so teachers can use them as evaluation tools to see which students are contributing, how much they contribute, and how thoughtfully they are working.

Creating the real-world scenario in which students cooperate to solve problems will be accomplished through a project-based software program entitled *Personal Finance and Wealth Management*. This program is built around a game concept where students study financial clues, crunch numbers in a spreadsheet, balance checkbooks, and learn about the stock market to discover the individual who committed fraud in a company. Using this self-paced, self-directed program, students will learn the importance of problem solving and will sharpen their critical thinking skills.

In addition to the collaboration between gifted students at both schools, the *redesign* will also introduce an added collaborative element involving professionals from the community. One speaker from American Express (Ameriprise Financial) and others from the University of Florida Finance Department have offered to work with Bishop and Westwood to address financial topics and to answer student questions. The goal is to provide students with speakers who are excited about what they do and to expose them to potential future careers as well as furnishing real-world insight and guidance to the problems they encounter while participating in the class.

B. Activities:

Teacher Training and Collaboration—Collaboration between the two Social Studies teachers will take place at the beginning of the grant cycle in order to cooperate on the gifted unit redesign and use of the *Personal Finance and Wealth Management* software. It is expected that the Social Studies teachers will meet to plan and adjust the curriculum, and they will also continue collaboration electronically as well as meeting face-to-face periodically throughout the project period. The gifted Social Studies teachers and the Media Specialist from Westwood Middle will also receive training from Bishop's technology teacher in the use of the *Personal Finance and Wealth Management* software program. Each teacher will have access to the software and will experience it first hand to extract content as it relates to the unit of study. Teachers will become familiar with the worksheets, quizzes, and other tools in the program and will compare with those existing in the *Stock Market Simulation* game. Social Studies teachers will choose instruments to test students' acquisition of knowledge or will create new instruments to adjust to the changes and new collaborative nature of the curriculum. The introduction of the free *Google: Documents and Spreadsheets* will also require training by the technology teacher. All teachers participating in this project will collaborate over the Internet using the *Google: Documents and Spreadsheet* instruments.

In addition to training and software provided to both schools, Bishop Middle School will purchase 3 laptops to add to the gifted students' computer cart to provide a 1:1 ratio of students to laptops. Westwood Middle school already provides a 1:1 ratio. A 1:1 ratio will provide each student the ability to use the project-based learning software at his/her own pace during class.

Instructional Sequence (twelve weeks)—During the first three weeks of the unit, students will be introduced to the *Personal Finance and Wealth Management* project-based software and will solve the first of the two problems presented. This will take place in the computer lab and may be continued in after-school sessions. The technology teacher or media specialists will be responsible for introducing this program to both teachers and students and for monitoring student progress. The software program includes planning sheets, progress reports, and quizzes that will provide feedback to teachers about student progress during this phase of the unit. It is expected that some students will be interested in continuing the project-based software games, and before- and after-school sessions for this purpose will be planned during the duration of the unit (12 weeks).

After the first three weeks, students will have acquired financial skills that will enable them to make informed choices about debt, balancing a checkbook, making and managing investments, and other skills necessary to ensuring financial stability throughout their life. Students will begin to understand how math,

language, and technology can be applied to make a difference in financial matters. In addition, the early phase is designed to lay the groundwork for other more sophisticated concepts to be covered in the final weeks of the project.

During the following nine weeks, students will be introduced to the *Stock Market Simulation* game, be assigned to groups and/or teams, be registered for the game, will select their hypothetical portfolio, and will play. Teams will be formed with mixed groups from the two schools (two students from Bishop and two students from Westwood, for example) and they will electronically collaborate and communicate via *Google: Documents and Spreadsheets*. The ability to upload documents and spreadsheets generated in a computer lab will be invaluable for this collaboration. Documents and spreadsheets generated by teachers and students will be the tools teachers will use to evaluate the project as well as the results of their Stock Market portfolios at the end of the unit.

After the nine-week period, students will have learned how to conduct research and how to work collaboratively in teams to make decisions while building skills in math and business. In addition, through buying and selling investments in their fantasy portfolios, students will have made use of cross-curricular skills and knowledge in areas such as history, civics, and language. Some of the key concepts/life skills that will be covered are:

- Applying analytical skills and financial concepts to real-world problems.
- Understanding and demonstrating a basic knowledge of money management.
- Explaining the dangers of poor money management practices and their effects on one's financial future.
- Understanding and demonstrating the use of spreadsheets in analysis and prediction of financial trends.
- Explaining basic strategies of personal finance and wealth management.

Throughout the 12-week unit, speakers from American Express (Ameriprise Financial) and others from the University of Florida Finance Department will visit Bishop and Westwood to address financial issues and to answer student questions. The goal is to provide students with real-world insight into the problems they will encounter while participating in the *Stock Market Simulation* and while using the *Personal Finance and Wealth Management* project-based software. In addition, students will be exposed to careers that center on economics and finance and will be provided with a perspective not gained from their classroom teachers.

C. Objectives:

At the end of this experience, students will have met the objectives presented for this unit and will have acquired technology and collaboration skills that will be invaluable later in life. They will have improved research and problem-solving skills, acquired a deeper knowledge of subject matter, and acquired self-direction and motivation to excel. *Google Documents and Spreadsheets* by teachers and students, worksheets from the *Personal Finance* software, and performance in the *Stock Market Simulation* game will serve as instruments for evaluating the effectiveness of the ***Financial Wizards*** project.

Objective 1: Increase student awareness of the American and global economy.

Objective 2: Enhance gifted students' abilities in using technology to collaborate to propose, assess, and implement solutions to real-world problems.

Objective 3: Increase students' awareness of careers related to economics.

In addition to the preceding objectives, this unit also addresses key components of the **Sunshine State Standards**. The following specific standards for Economics in Social Studies for 8th grade are addressed by the proposed redesign:

Standard 1:

The student understands how scarcity requires individuals and institutions to make choices about how to use resources. (SS.D.1.3)

1. knows the options and resources that are available for consumer protection.
2. understands the advantages and disadvantages of various kinds of credit (e.g., credit cards, bank loans, or financing with no payment for six months).
3. understands the variety of factors necessary to consider when making wise consumer decisions.

Standard 2:

The student understands the characteristics of different economic systems and institutions. (SS.D.2.3)

1. understands how production and distribution decisions are determined in the United States economy and how these decisions compare to those made in market, tradition-based, command, and mixed economic systems.
2. understands that relative prices and how they affect people's decisions are the means by which a market system provides answers to the three basic economic questions: What goods and services will be produced? How will they be produced? Who will buy them?
3. knows the various kinds of specialized institutions that exist in market economies (e.g., corporations, labor unions, banks, and the stock market).

Additional skills in content outside of Social Studies will be strengthened. The project will address Language Arts Sunshine State Standards in Reading and particularly those in Writing, as well as Listening, Viewing, and Speaking. Sunshine State Standards in Mathematics will also be reinforced, particularly those dealing with Data Analysis and Probability.

In addition the Sunshine State Standards, students will sharpen their technology skills in the areas of software usage (specialized project-based programs, Word, and Excel), use of the Internet (browsing, searching, and surfing skills), and in on-line collaboration and specific on-line collaborative software (*Google: Documents and Spreadsheets*).

These objectives are appropriate for gifted students, and especially when studied in depth as proposed by the *Financial Wizard* project. With the inclusion of digital media, a redesign of instructional focus, and collaboration with other students and professionals from the community, the curriculum unit becomes project-based and collaborative, and it is reflective of situations students will face in the workplace.

D. Proposed Project Personnel

At least five (5) teachers from two schools will participate in the project.

Coral Antony, Media Specialist/Instructional Technologist at Bishop Middle School, will be responsible for administering the project.

James Morris, 8th grade Social Studies teacher in the Academy of Technology and Gifted studies at Howard Bishop Middle, will be in charge of the *Stock Market Simulation* game and redesign of the unit. He will collaborate with **Daphne Ticola**, 8th grade gifted Social Studies teacher at Westwood Middle School on the unit redesign.

Dekle Vickers, Technology teacher at Bishop, will be in charge of training all teachers and students in the use of the project-based learning software, *Personal Finance and Wealth Management*.

Debbie Roberts, Media Specialist at Westwood, will supervise the use of software at Westwood Middle School, as well as the *Stock Market Simulation* game.

Both Media Specialists will be in charge of setting up and troubleshooting the software program in the existing computer labs with additional support from the district's Instructional Technology department, as needed.

E. Project Timeline:

DATE	ACTIVITIES	PARTICIPANTS	EVALUATION INSTRUMENT
Summer 2007	Attend FLDOE meeting to review the expectations for evaluation and dissemination of the project	Project Administrator	Attendance logs.
Fall 2007	Social Studies teachers collaboratively redesign the “Stock Market” unit for 8 th grade Social Studies gifted classes via: Face-to-face meetings Phone calls	Social Studies teachers	Redesigned curriculum, notes from face-to-face meeting and action research evident in the <i>Google: Documents and Spreadsheet</i> website.
October 2007	Procure <i>Personal Finance and Wealth Management</i> software. Begin teachers training: teachers will complete a project-based learning module and become proficient in the use of the software.	Social Studies teachers, Media Specialists, Technology teacher	Software generated certificate of completion.
November 2007	Train teachers to use <i>Google: Documents and Spreadsheets</i> for electronic collaboration. Electronic collaboration via <i>Google: Documents and Spreadsheets</i> and email	Social Studies teachers, Media Specialists, Technology teacher	At least one word processing document and one spreadsheet document per participant published to <i>Google: Documents and Spreadsheets</i> .
March 2008	Students attend computer lab and after-school sessions to learn to use the software and to complete the first module of the software.	Students at Westwood and Bishop, Technology Teacher, Media Specialists, Social Studies teachers	Computer-generated certificate of completion
April 2008	Students learn to use <i>Google: Documents and Spreadsheets</i> for collaborating in a unit about the Stock Market. Teachers facilitate collaboration.	Students at Bishop and Westwood, Teachers	At least one word document and one spreadsheet by team in <i>Google: Documents and Spreadsheets</i>
April-May 2008	Students attend classes and follow the redesigned curriculum. Form student teams for <i>Stock Market Simulation</i> . Procure free local newspaper subscriptions Receive guest speakers from the community who will provide informational sessions.	Students, Social Studies teachers, Guest Speakers	Stock Market folder with products of student research, electronic collaboration, emails and worksheets (if any) derived from the redesigned curriculum.
Summer 2008	Disseminate findings: Teachers participate in workshops and meetings to help disseminate findings.	All teachers	Sign-in sheets Emails Flyers

4. Evaluation

The following qualitative and quantitative data will be collected to measure the effectiveness of the program:

Objective 1: Increase student awareness of the American and global economy.

A minimum of 85% of participating students will increase their understanding of the American and global economy as measured by a pre/posttest and assessment of student folder/portfolio.

Students will be evaluated using the *Stock Market Simulation* re-designed end-of-unit test as a pre- and post-test. Additionally, students will complete response worksheets and quizzes in the *Personal Finance and Wealth Management* software. Redesign of the unit will result in teachers having updated evaluation instruments for weekly lessons of the *Stock Market Simulation* game. Students will also complete investment and collaborative logs online and on paper. Work samples will be placed in a folder and turned in to teachers for portfolio evaluation.

Objective 2: Enhance gifted students' abilities in using technology to collaborate, propose, assess, and implement solutions to real-world problems.

All participating students will use technology to investigate, to collaborate, and to solve real-world situations. Success will be documented by attendance records, in-class teacher assessments, and unit completion.

The final product from the student collaboration teams will be a multimedia presentation summarizing the teams' operation and performance in the *Stock Market Simulation*. This presentation will be made to classmates and shared over the Internet for both schools to download and watch.

Objective 3: Increase student awareness of careers related to economics.

Students will prepare one online journal entry about each guest speaker and provide personal thoughts about the speaker's career. Journal entries will be submitted as part of their portfolio for teacher evaluation. Any students expressing a desire to pursue the same career or an interest in it will have this information copied to their school guidance counselor.

5. Support for Strategic Imperatives

A. Just Read! Florida

One consequence of the Just Read, Florida initiative is the attention that has been focused on building reading skills across the curriculum and in increasing reading achievement at every level. While gifted students do not typically experience great difficulties in the fundamentals of reading, research demonstrates the need to provide a continuing focus on building reading ability and providing a challenge to proficient readers. Activities conducted throughout the *Financial Wizards* project are designed to test even the brightest of students and to continue building their ability to process text, to enhance their vocabulary, and strengthen comprehension. Students will be involved in project-based activities that will require them to gather information from a variety of sources, including traditional text and curriculum materials, the internet, and program software. Students will be required to read, perform research, and analyze material in order to effectively participate in the *Stock Market Simulation*. Finally, students will further build reading and writing skills as they communicate with each other utilizing web-based services.

In addition to the reading skill enhancement inherent to the project, teachers in each of the gifted classes have been prepared to maximize potential for building reading ability in their own coursework. Teaching

reading across the curriculum has long been a focus within the district. Previous grant initiatives have permitted teachers in all disciplines to receive training in pedagogical techniques in reading instruction. Reading coaches in each middle school also regularly work with teachers outside the language arts classes to provide support in reading instruction and reading skill enhancement. Students in all classes, including the gifted programs, are regularly assessed in their ability to effectively utilize text, and teachers in all disciplines design activities to address reading skill development that is appropriate to student abilities.

B. Support for Strategic Imperatives

Florida State Board of Education (SBE) Strategic Imperative number 3, Improve Student Rates of Learning will be the primary focus of *Financial Wizards*. Under Imperative 3, Management Objective 3.1 states “Improve student learning gains.” This project will help achieve that objective by providing activities that challenge gifted students to perform at higher levels than are possible through traditional classroom methods. By utilizing project-based learning strategies, students will learn cooperation, problem-solving, and research skills, and they will improve their ability to gain information from non-traditional sources. Activities will enhance mathematics skills—particularly as they relate to solving real-world problems—and will allow students to apply and increase reading and writing skills. Program objectives are designed to specifically address national math, language, and technology standards as well as Sunshine State Standards for Social Studies, Language Arts, and Mathematics.

The project will also address Management Objective 3.3. This objective states “Ensure college readiness of high school graduates.” Utilizing technology will prepare students for college-level work and prepare them for life in an age of technology by sharpening computer skills. Furthermore, students will acquire knowledge of the world economic system, finance, personal wealth, and the stock market. They will be taught how to use newspapers, internet, and other resources to research companies and the market; how to analyze news regarding the economy and world markets; and how to use information to solve problems in a creative and cooperative manner.

6. Dissemination Plan

A. Stakeholder Support

Stakeholder support is vital to the school system. Studies indicate that the more information people have about the local schools and their programs, the more likely they are to support them. The district strives to keep stakeholders informed of special projects and Department of Education awards and initiatives through a variety of channels. Dissemination of information regarding the current proposed project will involve sharing information about the project with the local community, parents and other stakeholders, and with teachers in other schools throughout the district.

The general community will receive information about the *Financial Wizards* project through press releases to the local media, presentations at the televised school board meetings, and through the district website. The district's Public Information Office will coordinate efforts to provide this information in an effective fashion.

Parents at the participating schools will be informed through presentations at school PTA and School Advisory Council meetings, letters sent home, the district's "Phonehome" automated telephone system, Parent Conference Nights, and direct contact by teachers and school administrative staff with parents. Students themselves will also be a vehicle of information to parents. Engagement in new learning initiatives will be obvious, and it is expected that excitement about the technology and project-based nature of the activities will be apparent.

It is expected, as well, that teachers—both within the project schools and from other district schools—will be interested in the project, its potential to provide unique learning opportunities for students, and the effect of project activities on student learning. Project coordinators and teachers who are involved with project activities will make presentations at monthly curriculum department meetings for teachers of gifted students. The Teacher on Special Assignment for Gifted Programs will coordinate these meetings and assure dissemination of information regarding the program to teachers at all schools within the district.

B. Project Narrative

In accordance with requirements of the award, district staff will work with the granting agency to produce a written narrative about the project for DOE publication. In addition to meeting formatting requirements, this narrative will provide other teachers with curriculum ideas and implementation strategies. A copy of this narrative will be placed on both schools' websites (<http://www/sbac.edu/~bms> and <http://www/sbac.edu/~wms>).

7. Budget

A budget has been prepared to reflect the needs of the project design. A complete budget narrative is included on the DOE 101 Budget page included with this proposal.