



W O O D L A N D E D U C A T I O N A L F O U N D A T I O N

STAFF GRANT APPLICATION

Please type and attach your responses to the following, using as much space as needed.

Teacher Name:	Kirsten Van Dyke	Position:	3 rd Grade Teacher
School:	Woodland Elementary West	Email:	kvandyke@dist50.net
Grant Category:	Up to \$1000 <input type="checkbox"/>	Over \$1000 <input checked="" type="checkbox"/>	Work Phone: (847) 984-8931

1. Provide a detailed outline of the proposed project as follows:

- Title
- Objective/purpose
- General description including activities, resources, and who is impacted
- Timeline
- Personnel involved
- Communication plan for disseminating information about the grant and its results
- Budget (specify projected expenses)

I. **Title:** SMART Board™, SUCCESSFUL Students

II. **Objective/Purpose:**

- To enrich and enhance Woodland’s curriculum through interactive technology integration.
- To differentiate instruction for below-grade level, grade-level, and above-grade level students.
- To inspire and develop students to be self-directed critical thinkers and successful learners.

- To increase student achievement as measured by the Measures of Academic Progress (MAP) assessment and the 3rd grade Illinois Standards Achievement Test (ISAT) in both reading and math.

III. **Description:**

The funding of this grant would pay for the purchase of a SMART Board™ Interactive Whiteboard on a mobile floor stand for Woodland Elementary West. The SMART Board™ 680 allows teachers to incorporate multimedia elements into lessons, such as videos and interactive demonstrations, to make lessons more exciting and encourage active participation from all students. Once an audio system is added, all students can clearly hear, see, and participate with the information they are learning. A mobile floor stand will ensure access for all students.

The SMART Board™ Interactive Whiteboard system comes with Notebook software, which provides a variety of tools to help differentiate instruction in the classroom, and develop exciting lessons and activities. Students and teachers can write with a digital marker, or with their finger, directly onto the SMART Board™ screen. Writing can also be erased using the digital eraser included with the system. Also, the surface of a SMART Board™ is compatible with dry-erase markers and can be easily cleaned.

Functions performed on a computer can be performed on-screen without the use of a mouse. Files can be saved in various formats and then printed, emailed, or posted to a classroom or school website. Users can write over moving or paused video, as well as record screen activity as a video file. Attention can be drawn to a section of the screen by using the Spotlight tool or the Screen Shade, both included with the Notebook software.

Users can browse the Internet, watch a video, share a presentation, or participate in an interactive activity. The SMART Keyboard™ feature can also be used to type information directly onto the screen. Basically, anything that can be done on classroom computers can be enhanced on a SMART Board™, plus much more! The possibilities are truly endless (SMART™ Technologies, 2008)!

- [SMART Board™ Product Tour](#) –Requires [Flash Player 7](#)
- Free Notebook software download – [Mac](#)
[Windows](#)

IV. **Timeline:**

February – June 2009

- Purchase and installation of SMART Board™ 680 system, mobile floor stand, and USB audio system
- Teachers utilize SMART Board™ in the classroom to enrich and enhance Woodland’s existing curriculum

June 2009

- Grant evaluation
- Interactive whiteboard system use for succeeding years

V. **Personnel involved:** Kirsten Van Dyke

VI. Communication plan:

Information about this program will be disseminated in a variety of ways. I maintain a classroom website (<http://www.mrsvandyke.com>), which is frequently visited by my students, their parents, as well as other teachers from our district as well as outside of our district. In the last thirty days alone, my site has been visited a total of 15,263 times, with 5,039 visits in the last week. If a SMART Board™ is purchased for Woodland Elementary West, I will add a page to my site about the funded program, the Woodland Educational Foundation, as well as SMART™ Technologies, Inc. I would include resources for other professionals planning on using this technology within their classrooms. Lesson ideas and activities could also be posted. I would also notify the local media about the project via Jennifer Tempest Bova, Woodland’s Public Information Specialist. In addition, I would be more than willing to present information regarding the project to my colleagues at Woodland, perhaps during a staff meeting or inservice. Finally, parents would be kept informed of classroom activities involving the SMART Board™ through my weekly classroom newsletter.

VII. <u>Budget:</u>	SMART Board™ 680 (77” diagonal)	\$1,399
	USB audio system for SMART Board™ 600 series	\$299
	SMART Board Mobile Floor Stand FS670 (for SB680)	\$349
	10’ VGA w/Audio Cable	\$42
	Distribution Amplifier	\$105
	12’ Triple RCA	\$18
	6’ Stereo Mini Cable	\$8
	AV Phono B	\$15
	Freight	\$192

	Total	\$2,427

2. How does your project align to Woodland School District 50's curriculum and Strategic Plan?

Woodland's mission statement is "Learning...to find solutions." It is my job as an educator to provide the best means of helping my students gain the confidence, motivation, and self-direction to find these solutions.

Funding this grant will make the district's vision from the 2007-2012 Strategic Plan a reality. This vision states that Woodland will "create an environment that inspires and develops all members to be self-directed critical thinkers, successful learners, and responsible citizens interacting in a global society" (Woodland School District 50, 2007). By integrating the use of an interactive whiteboard in the classroom, teachers will inspire the students in their classes to try their best by making daily lessons memorable, fun, and engaging. "They're going on virtual field trips. They're clicking on interactive games, manipulating the hands of a clock. It connects everyone in the room and the resources that were in the media center or on a whole other continent. This is the type of stimulation they respond to" (O'Hanlon, 2007).

Most of our students today have been submersed in a world of technology from the time they were born. They spend time using the computer and they own video game systems, iPods, cell phones, and other interactive handheld devices. "I think if we don't focus on technology as part of their learning, we are missing the boat because it's so much a part of their lives," explains Deb Ray, the assistant technology director for Lexington Local School District in Ohio (SMART™ Technologies, 2007). This type of learning experience hooks the students onto what they are learning as well as motivates them to continue to pay attention and try their best.

Teachers will be able to provide exciting opportunities for their students to find solutions. Each student will become a self-directed learner; rather than by sitting back and listening to a teacher tell them what they need to learn. Students need to understand the context that they are learning, rather than simply learning the content. By using an interactive whiteboard, students will have the chance to actually become a part of their learning experience, instead of being bystanders. The students will become motivated to actively participate in class. Lori Reed, an elementary teacher from Texas, used to feel restricted and forced to use a lecture-based teaching style for many lessons. Her chalkboard and overhead projector did not provide for much flexibility in presentation methods. She found that her students often had trouble focusing and did not participate as much as she would have liked them to. "Technology has changed my classroom, especially the interactive whiteboard – it's the best tool I have. It has enabled me to move from the sage on the stage to the guide on the side. Kids are in charge of the lessons; they are at the interactive whiteboard actively constructing their knowledge," Reed says (SMART™ Technologies, 2007).

Today's world is ever-changing and students need to be able to learn skills to cope with this constant change. Among the variety of changes that they will have to face is learning how to interact well with other people, even when others may not have the same opinions as their own. Learning how to work well with others will lead students to become successful learners. Students in District 50 are expected to learn to "work cooperatively with partners and teams by encouraging others and being respectful",

according to the Physical Education Curriculum Objectives for third grade. Students should be given the opportunity to practice this important skill throughout the school day as well. Eric Payne, a math instructor from Alexandria, VA, uses an interactive whiteboard in his classroom. He believes that one of the benefits of using this learning tool is that interaction is increased between students. His students often work as a team to solve problems that he designs for use with his interactive whiteboard (O'Hanlon, 2007). Staci Gille, a first-grade teacher from Florida uses her interactive whiteboard as a learning center. "Using it does involve taking turns and paying attention to what the other students are doing. The students are definitely working together" (O'Hanlon, 2007).

Corryann Thompson, a fifth-grade science teacher from Texas, is thrilled that her interactive whiteboard has created a student-centered environment in her classroom. Not only do her students have more of an opportunity to become more critical thinkers, they also get to share this knowledge with their peers. In addition, she is able to step back and observe her students on a more regular basis. This creates more of an opportunity for her to assess the students' progress (SMART™ Technologies, 2007).

More opportunities for both formal and informal assessment can be created with the addition of an interactive whiteboard in the classroom. Students are given a hands-on opportunity to show what they know, while the teacher can save evidence of student achievement with the click of a mouse. Student presentations and activities can be saved, e-mailed, posted to a classroom website, or printed out to add to a working portfolio. Parents will have the opportunity to see first-hand what their child has been learning and what skills their child needs improvement on.

In order for students to be successful in the future, they must be digitally literate. Woodland's third graders are expected to learn to "build self-confidence in using technology; use developmentally appropriate multimedia resources to support learning; as well as to use technology resources for problem solving, communication and illustration of thoughts, ideas, and stories." Interactive whiteboards provide opportunities for students to experience using technology to enhance their learning. Students will be immersed in a world of technology-based education, which will prepare them for their future. They can use computer programs that they have been introduced to in a whole new way. KidPix®, Kidspiration®, TimeLiner®, The Graph Club®, Microsoft Office® programs, and the Internet will come alive for the students. They will move from asking to "play on the computer" to using the computer to explore the world around them.

In the district's Strategic Plan, it states that "by 2008-2009, Woodland will attain "High Growth" of students achieving targets as defined by NWEA and measured by Measures of Academic Progress (MAP) assessment in each grade 2-8 in both mathematics and reading." In addition, the district will work toward "raising reading achievement to 92.5% of students meeting or exceeding standards on the 2012 3rd grade ISAT" (Woodland School District 50, 2008). Using an interactive whiteboard in the classroom has proven successful for other districts reaching for the same type of goal. "In 2006, after only four months using the SMART Board™, I saw a four percent increase on our science scores," says Corryann Thompson, fifth-grade science teacher. "I know...my current students are grasping so much more of the information than my students in previous years" (SMART™ Technologies, 2007). Tony Trongone, math facilitator for New Jersey's Gloucester City Public Schools, explains, "We were a district in need of improvement and now we're out of that. Math scores in the district's middle school have

also improved by 16 percentage points.” Specifically, geometry scores went up, which Trongone believes is because of the addition of interactive whiteboards, which allow students to manipulate objects and use their spatial intelligence. (SMART™ Technologies, 2007). Richland School District 2 reports that test scores have risen 30 percent more in classrooms using interactive whiteboards than those that do not use this tool (O’Hanlon, 2007).

There is a wealth of resources available for use with interactive whiteboards in the classroom that may help students reach a higher level of achievement than in the past. One such resource is the website, Internet4Classrooms (http://www.internet4classrooms.com/grade_level_help.htm). This website has a section that contains interactive sites specially aimed at building skills that specific grade levels should be learning. These sites can be used in a whole group setting using the interactive whiteboard and then practiced at home using a personal computer. For example, if I were teaching a math lesson on symmetry, I could click on the “math” link on Internet4Classroom’s Third Grade Skills site. I would then find “Symmetry” on the list of specific skills. Useful interactive websites that would be appropriate for third graders are listed next to the skill. The first link that I can click on leads to a wonderful interactive activity in which the students must drag a shape into a barrel labeled “symmetry” or a barrel labeled “no symmetry” (Figure 1). This would be a great introduction to this skill, as well as an excellent practice activity. Another link from the same site directs the class to an interactive symmetry activity in which they can design their own symmetrical figure and then check their work (Figure 2). Extension activities and questions are listed at the bottom of the screen in order to differentiate instruction for students who need an extra challenge or for those who finish their work early (Figure 3). Instead of having students sit back and wait for the rest of their classmates to finish an activity, options are available for them to take an active role in practicing the skill that they just learned.

According to Performance Indicator #1 for Goal 1a of Woodland’s Strategic Plan, the district would like to “increase teacher ability to differentiate in math and language arts for below-grade level, grade-level, and above-grade level students” (Woodland School District 50, 2008). All students learn at different rates and in different ways. Differentiated learning is strongly supported through the use of interactive whiteboards in the classroom. “I have to make sure that every learner is getting the same message, and using the SMART Board™ means my instruction is reaching all of the learners in my class. It helps me teach to the different modalities, especially the visual and tactile, because my students come up to the board and move images around or draw on it,” says Corryann Thompson, fifth-grade science teacher (SMART™ Technologies, 2007). Activities completed in class using the interactive whiteboard can be saved, emailed, or printed. These activities can then be used by struggling students working with parent volunteers, resource teachers and specialists, or parents at home to provide extra support and practice of skills learned in class. Above-grade level students may even be able to design their own activities using the interactive whiteboard. Instead of being the first group of students done with an activity, they can be given a challenge that is fit to their ability level.

Dr. Howard Gardner developed the theory of Multiple Intelligences in 1983. Dr. Gardner suggested that there are eight different types of intelligence, which include Verbal-Linguistic, Logical-Mathematical, Intrapersonal, Interpersonal, Musical,

Naturalist, Bodily-Kinesthetic, and Visual-Spatial intelligence. It is important to include as many of these types of intelligences during activities, whenever appropriate and possible. The interactive whiteboard “squares up the field among different types of learners, because the board incorporates the sights, sounds, and stimulation that each style thrives on” (O’Hanlon, 2007). For example, Visual-Spatial learners will respond well to the visual representations of what they are learning. The SMART™ Video Player, a tool that comes with the SMART Board™ package, allows the students to view on-screen videos based on the topic that they are studying. All images shown on the interactive whiteboard can be paused, written over, drawn on, saved, emailed, or printed. This would be extremely helpful for a student who might not understand a topic the first time around. After saving the activity completed in class as a whole group, that student can practice the same activity with a parent volunteer, or one on one with a teacher later on in the day. With an interactive whiteboard, all students have the option to see, hear, and interact with what they are learning. When students are working at their ability level as well as with their favored type of intelligence, this adds a level of comfort for them. Having a level learning field with other classmates encourages students to take more risks in their learning. “They are so stimulated, there is no fear” (O’Hanlon, 2007).

Figure 1



Figure 2

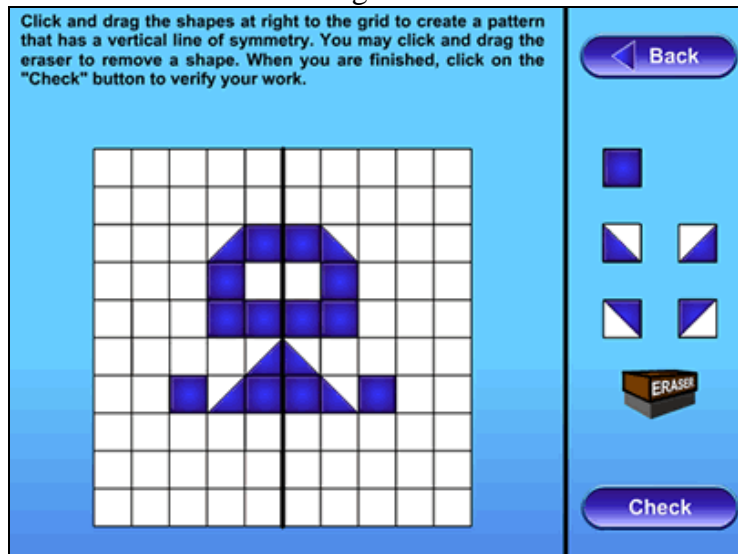


Figure 3

Write About It
 Use a piece of paper to answer the questions below about your symmetry activity.

1. How did you know which shapes to use to create a pattern with symmetry?
2. What do you notice about shapes or designs that have symmetry?
3. Does it make a difference if the line of symmetry is vertical or horizontal? Why or why not?
4. Locate two objects in the classroom: one that has symmetry and one that does not. Explain how these objects are different. Why do some objects have symmetry and some objects do not?

Activity
 Follow the directions given for each activity shown below.

1. Using graph paper, draw another shape or design that has symmetry. Note: Do not forget to include the line of symmetry.
2. Draw a picture with a line of symmetry and ask a partner to locate the line of symmetry.
3. Locate an item in the room that has symmetry and ask a partner to try and guess which object you have selected. Offer 10 clues and allow the partner to guess after each clue. If the partner guesses the object then it is his/her turn to locate an object that has symmetry and offer you the clues.

3. In what ways does the project support the Foundation's mission of promoting innovation and enhancing educational experiences?

The mission of the Woodland Educational Foundation is “to creatively generate and distribute resources with which to enrich and enhance the opportunities of educational experiences of Woodland Community Consolidated School District 50 students” (Woodland Educational Foundation, 2007). Incorporating the use of an interactive whiteboard in the classroom would do exactly that. Corryann Thompson, fifth-grade science teacher from Texas says that her interactive whiteboard allows her students to dig deeper into topics that they are studying and to go beyond the surface (SMART™ Technologies, 2007). Instead of simply learning information about a topic at a level in which the students memorize information to pass a test, students can step right up to the whiteboard and interact with the information. They can become a part of the topic that they are learning. Troy Trongone from New Jersey's Gloucester City Public Schools uses his interactive whiteboard for a variety of subjects, including reading. “We scan the pages of a story, and then students sit around the interactive whiteboard and read the story aloud in class. Or we use streaming video to watch a movie” (SMART™ Technologies, 2007). Websites such as BrainPop® (<http://www.brainpop.com>), which allow the students to watch videos on a variety of subjects, would lend themselves very well to this type of technology (Figure 4). After the students have finished watching a video, BrainPop® gives students options, such as taking a quiz or completing a related activity (Figure 5).

School districts all over the country are “throwing their weight behind a technology they believe enhances not only the teaching experience but also the interaction between teacher and student” (O’Hanlon, 2007). Teachers who use interactive whiteboards in their classroom can use resources that they have already developed in a new and effective way. “Other technologies expect you to reinvent yourself. This enhances what you’re already doing,” points out Mike Horan, director of instructional technology for the Sarasota County School District in Florida (O’Hanlon, 2007). I received my masters’ degree in Integrating Technology in the Classroom in April 2008. Throughout this experience, I have gained many new ideas and techniques to put into place in my own classroom, as well as to share with my colleagues.

Using interactive whiteboards in the classroom will “enrich the curriculum of the District, and provide innovative academic and extra-curricular learning opportunities for the District’s children.” It will also “provide students with opportunities they would not otherwise be privileged to experience” as well as “assist in maintaining at the District the highest standards for programs, resources, and facilities.” (Woodland Educational Foundation, 2007). Corryann Thompson, an interactive whiteboard user, believes that “every teacher and student should have the privilege of using this technology” (SMART™ Technologies, 2007). Interactive whiteboards keep students visually stimulated and on task. Therefore, if students are able to experience this type of enhanced learning, they will learn a concept more completely (SMART™ Technologies, 2007). Interactive whiteboards can completely transform the learning experience for our students. Many resources used in schools across the country will soon become obsolete due to the digital age (Villano, 2006). Among these resources is the chalkboard. With

4. How will the project benefit student learning, and what are the anticipated educational outcomes?

The students at Woodland Elementary West will benefit from the purchase of an interactive whiteboard in a variety of ways. Not only will school become an exciting place for every student in class, but also the curriculum will be transformed. Due to this enhanced curriculum, the students will have better understanding of the information taught. They will become active participants in their learning community. There are already so many wonderful resources available online or on our school computers that teachers would be able to make use of in new meaningful ways. The following PowerPoint® presentation outlines a number of activities and lesson ideas that correlate to the curriculum already in place within third grade classrooms at Woodland Elementary West.



"SMART Board.ppt"

(If file is not found, please see attached PowerPoint.)

Incorporating the use of an interactive whiteboard in the classroom would accomplish a number of educational outcomes:

- Students will exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- Students will demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students will:
 - Apply existing knowledge to generate new ideas, products, or processes.
 - Create original works as a means of personal or group expression
 - Use models and simulations to explore complex systems and issues
- Students will use critical thinking skills to plan and conduct research, solve problems, and make informed decisions using appropriate digital tools and resources. Students will:
 - Collect and analyze data to identify solutions and/or make informed decisions
 - Use multiple processes and diverse perspectives to explore alternative solutions
- Students will demonstrate a sound understanding of technology concepts, systems, and operations. Students will:
 - Transfer current knowledge to learning of new technologies

2007 International Society for Technology in Education (ISTE)

National Educational Technology Standards and Performance Indicators for Students (NETS-S)

5. How will the effectiveness of the project be evaluated?

The effectiveness of the use of a SMART Board™ in my classroom would be evaluated in a number of ways.

- Student achievement will be measured by performance on the MAP and ISAT assessments.
- A questionnaire will be given to students and their parents, as well as staff members, at various points throughout the school year. This questionnaire will document their attitudes and feelings toward using a SMART Board™ in the classroom.
- Assessments, both formal and informal, will be given to the students throughout the year. Informal assessments would include teacher observation and anecdotal records, as well as student journal entries regarding use of the SMART Board™ in the classroom. Some lessons and activities will be video taped in order to document use of the SMART Board™ to enhance the curriculum. Student work samples will be saved to be included in a working portfolio throughout the year.

6. Have other funding sources for the project been explored? Please explain.

I contacted Woodland's Director of Technology, Dann Giesey, to inquire about possible funding of a SMART Board™ in the classroom. Unfortunately, at this time, this funding is not possible.

Last year, I wrote a grant application to obtain a SMART Board in my classroom. The Woodland Educational Foundation was unable to fund my grant at that time, due to the limited scope and impact of using a wall-mounted SMART Board in a single classroom. After further research, I discovered that using the SMART Board 680 with a portable floor stand would ensure that all Woodland Elementary West students would have access to this innovative use of technology.

Resources

BrainPOP. Retrieved February 23, 2008, from BrainPOP Web site:

<http://www.brainpop.com>

Dolezalek, H. (2006, Sept). Whiteboards done right. *Training*, 43 (9), 40.

O'Hanlon, C. (2007). Board CERTIFIED. *THE Journal*. 34, 30-34.

Ourada, M. (2007, Mar/Apr). What would you not want to teach without?. *Teacher Magazine*, 18(5), 18.

SMART Technologies, Inc., (2008). Factsheet. Retrieved February 23, 2008, from SMART Technologies Web site:

<http://education.smarttech.com/NR/rdonlyres/E497B430-589C-48CD-868D-2EAFBA5B820C/0/600iFactsheetEducation.pdf>

SMART Technologies, Inc., (2007, 2008). K-12 Case Studies. Retrieved February 23, 2008, from SMART Technologies Web site:

<http://education.smarttech.com/ste/en-US/News+and+research/Case+studies+and+best+practices/K-12+case+studies/default.htm>

Third Grade Skills. Retrieved February 23, 2008, from Internet4Classrooms Web site:

http://www.internet4classrooms.com/skills_3rd.htm

Villano, M (2006). Picture this!. *THE Journal*. 33.

Woodland Educational Foundation. (2007). Mission Statement and Purpose.

Woodland School District 50. (2008). Strategic Plan 2007-2012. Retrieved November 23, 2008, from Woodland School District 50 Web site:

<http://www.dist50.net/District50/wsd50plan.html>