REALISTIC CONTRIBUTIONS FOR IMPROVING THE PHYSICAL SCHOOL ENVIRONMENT

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to the Faculty of
California State University, Chico

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Curriculum and Instruction Option

by
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SCHOOL ENVIRONMENT

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Lauren Elizabeth Albert

Summer 2010

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ABSTRACT

REALISTIC CONTRIBUTIONS FOR IMPROVING THE PHYSICAL SCHOOL ENVIRONMENT

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Master of Arts in Education

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As funding for schools continues to decline, only certain projects can be completed. Certainly these projects should be ones that offer the greatest return in increasing student achievement. Indeed even in difficult financial times, it is possible to complete substantial improvement projects for minimal to no cost. However, there are no comprehensive handbooks that explain how to implement such projects. Despite this fact, improving the physical school environment is beneficial to students, educators, and the entire community.

The purpose of this project is to identify improvements to schools’ culture, through various projects enhancing the physical aesthetics of the school. The premise of the project is based on findings from a survey, which was directed at the aspects of the
schools’ physical environment that caused increases in students’ learning. This project provides a handbook of realistic resources for improving a school’s physical environment.

The handbook outlines four project ideas to be completed by the school community for minimal costs. The four project ideas are 1) School Murals, 2) School Garden, 3) Paint with School Colors Benches, Doors, etc., and 4) Plant Trees with Identification Tags. The projects are organized with step-by-step instructions for ease of completion. Additionally, the handbook provides resource ideas for funding.

Creating an enriching physical school environment has been shown to improve students’ attitudes toward learning, thus positively influencing test scores. This handbook is intended to improve the grounds and facilities of a school with the end result being a more motivated school community.
CHAPTER I

INTRODUCTION

For just a moment, visualize a room with leaking roofs, mold, broken tile, unusable sinks, and faded orange cupboards with peeling veneer. Picture children repeating their times tables as an enthusiastic teacher attempts to overpower the old classroom scent with hidden Glade wax. This teacher looks out the window and wonders why more cannot be done with the neglected facilities and grounds to show students they are important. This teacher is not alone, neither are these children. Teachers and students across the nation are aware of the exhausted state of their school’s physical facilities. At first glance, this idea of a “face lift” for schools may seem superficial. However, studies show that a clean, updated physical school environment improves school culture; an improved school culture has a positive influence on students’ learning (Bradley, 2000; Cohen, Pickeral, & McCloskey, 2009; Flutter, 2006; Healthy Schools Network, 2004; Stewart, 2008).

Students’ learning is often calculated through analysis of test results. Testing is significant: it has been for many years and will continue to be. “Student performance data are essential elements in a healthy and successful improvement effort” (Schmoker, 2000, p. 63). The results, in many cases dictate how a school is run and funded. Schools are under pressure to have their students perform their best. Several factors influence the test scores: curriculum choice, instructional strategies, and the school culture. Many
factors can not be controlled, such as students’ background. However, other factors can be focused on with the benefit of increasing test scores. One such factor is that of the school culture.

The concept of culture refers to a group’s shared beliefs, customs, and behavior. A school’s culture includes the obvious elements of schedules, curriculum, demographics, and policies, as well as the social interactions that occur within those structures and give a school its look and feel as “friendly,” “elite,” “competitive,” “inclusive,” and so on. (Small Schools Project, n.d., p. 1)

As school culture can relate to several aspects of a schools’ makeup, this project focuses on the physical school environment specifically.

In North Carolina, a study involving 32,000 teachers concluded that one of the top three factors of the school environment was “adequate facilities and resources” (Healthy Schools Network, 2004). Some modest improvements can influence the sense of school pride and spirit felt by administrators, teachers, students, and the community.

School attachment and school commitment were significantly associated with academic achievement, which suggests that as students feel a sense of attachment and show signs of commitment to school and schoolwork, they have higher GPAs. (Stewart, 2008, p. 197)

Clearly, improvements to the physical environment do make a difference. Some possible benefits include; physical benefits, motivation, and enriching environments that are mentally stimulating.

Maintaining facilities and grounds can be difficult for a school, and making improvements is rarely an option. This is especially true for Title I schools. Title I schools are those receiving financial support from the federal government.

Title I, Part A federal funds help to meet the educational needs of low-achieving students in California's highest-poverty schools. Funds are used to support effective, research-based educational strategies that close the achievement gap between high-and low-performing students and enable the students to meet the
state's challenging academic standards. Title I-funded schools are either targeted assistance schools or school wide program schools. (California Department of Education, 2009b)

On the surface it appears that there is extra funding for Title I schools, but these districts have additional costs.

The purpose of this title is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments. (U.S. Department of Education, 2004, “Sec. 1001. Statement of Purpose,” para. 1)

In other words, simply allocating more money into an impoverished school does not solve low-test score problems. Having sufficient funding however does serve as a starting point to ensure that opportunities are available for students to receive a quality learning experience in all socio-economic arenas.

State testing will not vanish; assessment is a permanent part of education. As such, all possible measures should be taken to ensure an appropriate education, which includes updating the physical school environment. The focus of this project is to provide resources for Title I schools to affordably enhance facilities and grounds in order to improve student achievement.

Purpose of the Project

The purpose of this project is two fold. First, it is to identify improvements to the physical environment of schools that have caused increases in student learning. Second, it is to provide resources for improving a school’s culture (focusing on the physical school environment). A survey will provide insight on possible improvement ideas. It is apparent that all those who are able need to refocus their energy and financial
support to that of improving the school culture; this includes facilities and school
grounds. There are several ideas one can come up with when thinking of school
improvements. For this project, I propose the use of four realistic ideas to provide the
entire school community with a sense of school pride derived from physical school
environment improvements. In short, these ideas include painting a mural, planning and
planting a school garden, painting doors and benches with school colors, and planting
trees throughout the school. I will also provide a list of resources for funding, including
grants for improving the school facilities and grounds.

Nearly 30 years ago, improving school facilities was a popular topic (U.S.
General Accounting Office, 1995, p. 3). It is time to seriously consider revisiting these
ideas of yesteryears. For those to whom assistance has not been given, or to those who
have a need, updates can be feasibly provided. Within the district I teach, one facility
alone has 10 portables that are over 30 years old. Each of these portables was intended as
a short term fix. They were never intended to last for that period of time. Money is
limited, and it may not be possible to have new permanent buildings put in place for
some time; it is however, entirely possible to update these portables with certain items.
This project describes some modest solutions for increasing school pride through
physical school improvement. If these solutions were to be applied in steps, the first one
would be to make a plan (which is provided in Appendix A). Second, acquire funding.
Recently, our rural community attempted to pass a bond for this very purpose, updating
the four school sites within the district. This 20.7 million dollar bond failed by a slim
margin (needing 55% to pass and receiving 49.3%) (Coleman, 2009). I have to come to
the conclusion that the community does not fully understand how neglected these schools
have become. Finding funds is not always simple. However, there are companies and government agencies who offer grants to schools for the purpose of simple construction, updating facilities, and improving school grounds. Within this project is a modest list of resources for this purpose. Still, there are some ways that are less costly to increase school pride and school spirit. These areas are where I will focus the curriculum. The last step is to carry out the plan and reap the benefits of your schools’ great accomplishment.

Scope (Description) of the Project

This project consists of the initial survey, curriculum for the school’s physical environment, and a list of financial resources. The main section is curriculum that can be duplicated and used at schools that need to improve their facilities and/or school grounds. A survey was given to enhance the study of factors affecting student achievement, reflected as API (Academic Performance Index) and to inform the curriculum.

Lesson plans and a list of the needed resources for completing school improvement project ideas will be provided. The first project will focus on painting a school mural wherein each class designs a 2’ x 2’ square. The second project includes planning and planting a 28’ x 42’ school garden. Depending on classroom design, self contained or rotating schedule, planter boxes can be sectioned off for classes to have as part of their own outdoor classroom. The third project is to paint benches and doors with school colors. The fourth project is to plant trees throughout the campus, as well as identify the trees with tree markers. Each project will have a list of materials, and
suggestions for carrying out the project. At all stages, of any of the projects, core subjects can be integrated.

One of the main barriers in accomplishing any school improvement project seems to be related to funding. The brief list provided is only a starting point of possible resources that are earmarked for improvements to the physical school environment. This list includes grants, donations, and fundraising ideas.

The survey contributed to the development of the curriculum. It was given to eight Title I middle schools in Northern California, who have had a dramatic increase in their STAR test scores from 2004-2005 through 2007-2008 school years. The survey consists of eight questions. Three of the questions were for classifying the weight of given responses. The next three questions were designed to find factors that influenced test scores. The last two questions were specific to how test scores are influenced by the physical school environment.

All grade levels can benefit from these projects. It is expected that any school that participates in any, or all of the projects described, will have an increase in student performance, and in a general positive mood felt throughout the school.

Significance of the Project

It is the purpose of this project to develop curriculum to assist schools in the process of increasing school spirit based on improvements in the physical school environment. Because these improvements will enhance all who use the school facilities and grounds, morale will increase resulting in a more positive learning environment. Students’ ability to learn and retain information will be greater because they feel a sense
of pride in their school. Studies show that students will perform better when they are surrounded by a positive physical school environment (Bradley, 2000; Flutter, 2006; Jones, Axelrad, & Wattingney, 2007). Positive student results are important because standardized test scores are a significant indicator for how schools are performing (Popham, 2006, p. 3).

“As society continues to focus on the importance of academic achievement, the physical environment of schools should be addressed as one of the critical factors that influence academic outcomes” (Jones et al., 2007, p. 544). There is a limited amount of information on the effect that the school environment has on students’ STAR scores specifically. This study is valuable in guiding administrators to create professional development and lead teachers in teaching concepts in ways that are most meaningful to their students. Also, the survey will provide insight on what teachers believe to be beneficial factors to increasing test scores. If a school has strength in motivating their students to perform their best on tests, for example, but lacks in keeping their school environment fresh, they can adapt those solutions. Although the focus of this project is on Title I schools in Northern California, the implications are generalizable to suburban, urban, and rural settings, throughout the nation.

Limitations of the Project

I recognize that not all schools will be able to carry out all projects, but where possible, these improvements will make a meaningful impact. Variables beyond the schools’ control may also inhibit a school from being able to carry out one of the outlined projects, i.e. enough land for the school garden.
In addition, survey results are administrators’ and teachers’ perspectives, and are therefore, not necessarily researched based, or statistically significant. The eight schools are Title I schools from Northern California. Not all of these middle schools contain the same grade levels. Some schools are 5-8, others are 6-8.

Lastly, other factors, beyond the physical environment of the school influence student results. Therefore, to conclude that the sole cause of students’ increase in test scores is from improvements to the school environment would be inaccurate.

Definition of Terms

**Academic Performance Index (API)**

“The cornerstone of California's Public Schools Accountability Act of 1999; measures the academic performance and growth of schools on a variety of academic measures” (California Department of Education, 2009a).

**California Standards Tests (CSTs)**

The CSTs are a major component of the STAR program. The CSTs are developed by California educators and test developers specifically for California. They measure students' progress toward achieving California's state-adopted academic content standards, which describe what students should know and be able to do in each grade and subject tested. (Educational Testing Service, 2009a, “Background,” para. 1)

**Physical School Environment**

Physical school environment is used to describe a school’s facilities (all buildings/ structures) and grounds (land operated by the school).

**Realistic Solutions**

Realistic solutions are those generally found to be acquirable in terms of funding, time, and effort.
School Culture

Phillips states school culture to be “the beliefs, attitude, and behaviors which characterize a school” (as cited in Wagner, Masden-Copas, & Philips, 2002, p. 1).

Standardized Testing and Reporting (STAR)

California's Standardized Testing (STAR) Program, authorized by law in 1997, consists of achievement tests administered annually to California students in public schools in grades two through eleven. The program has two major objectives:
• To test progress toward achievement of the California content standards
• To measure the achievement of California students in comparison with students nationwide. (Educational Testing Service, 2009b)
CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This review of the literature examines what effect the school culture has on learning, as reflected on state mandated assessments. Schools across the nation are put under great pressure to have their students perform well, thus positively affecting their school’s API. This demand, for high scores, has caused many schools to focus on numerous factors influencing test outcomes. The following review looks at one significant influence on test scores.

School culture has many aspects. The definition of school cultures varies. Despite this fact, Stoll and Fink (1996) describe school culture as having three main parts. These three focal points are: a common mission, an emphasis on learning, and climate conducive to learning (Stoll & Fink, 1996). Even these three are broad in scope. Each can be analyzed and weighed to help better know how to create or build a strong school culture. At heart, each of the aforementioned aspects does not exist singularly, but for simplicity, each will be discussed individually.

A common mission provides a unifying effect for a school community. An emphasis on learning is a focus on the curriculum choice and effective instruction. A climate conducive to learning ranges from the physical environment to a mental state. The focus of this project is specifically on the physical environment of school culture.
School Culture

School culture can be defined as a common mission, an emphasis on learning, and a climate conducive to learning (Stoll & Fink, 1996). Another definition of school culture is “values, rituals, and beliefs” (Wagner et al., 2002, p. 1). Whether a school has a positive or negative school culture has great weight on students’ academic performance. In addition, the aspects of school culture are intertwined pieces that work together for the benefit (or detriment in some cases) of the school community.

A Common Mission

To accomplish something there needs to be a designated focus. Creating a school culture is no different. A school that has a meaningful focus or mission, helps students to greatly benefit. “The presence and use of a shared vision as a unifying factor uses the strength of school culture to affect student achievement” (Smith, 2006, p. 36). Having a common mission benefits the whole school community. Patterson (2000) comments on a common mission with, “It is this step that can lead a school to substantive change and, potentially, a dramatic effect on student attitudes, achievement, and overall school success” (Patterson, 2000, p. 6). Clearly, school culture is enhanced by having a common focus.

This common focus is most easily achieved by having administrators create a goal and become leaders in helping the school community create clear goals.

The principal is in a pivotal position to shape school culture by providing leadership that reflects a well-defined vision that symbolically builds commitment to those approaches, attitudes and behaviors that will achieve improved student learning. (Alkire, 1995)
The administration of a school helps make the school culture what it is by inspiring teachers to be positively engaged in benefiting their school environment.

When the focus of a school includes a learning goal, research shows that these school academic scores rise above others. Goldring (2002) reported a study in which five high schools principals, from schools with API scores above 600, were asked “which traits of culture most affected student achievement?” (p. 33). The responses included having a shared vision and ability to cope with change (Goldring, 2002).

**Emphasis on Learning**

The second aspect of school culture includes the school community having an emphasis on learning. This includes, but is not limited to, curriculum design and implementation, instructional strategies, and an attitude that learning matters. Curriculum can be broken down into two categories: implicit, or hidden, and explicit, content (Chalmers, 2003, p. 35). Hidden curriculum has as great of an impact as the content curriculum on students’ learning (Wren, 1999). Hidden curriculum includes those things which are taught through ritual or example, but are not part of set content. The attitudes of administrators and teachers send a message to the students. An organized, prepared teacher tells students he/she cares and takes time to prepare for lessons.

The school culture is shaped by beliefs and ideals about learning. Because a school community consists of people with varying backgrounds and roles in the school community, communication and understanding are integral parts of positive school culture. “In order for team work to occur, members must deal with the stated and unspoken expectations for behavior norms in each group” (Goldring, 2002, p. 33). Teachers and administrators need to deduce what their common values and beliefs are
(Alkire, 1995). “Current research in school improvement and restructuring points out that a change in organizational culture does not take place unless there is a unification of the values and beliefs held by group members” (Alkire, 1995, “Buy-in,” para. 1).

Climate Conducive to Learning

For learning to take place, students need a place where they feel safe, where they feel challenged, and where the facilities and grounds are in good repair.

Compelling empirical research shows that a positive and sustained school climate promotes students’ academic achievement and healthy development. Not surprisingly, a positive school climate also promotes teacher retention, which itself enhances student success. (Cohen et al., 2009, p. 1)

No student, teacher, or any school personnel, wants to be in a location that is dark, in disrepair, or unsafe. Surely just as correlations can be made to support a positive school climate benefiting students and teachers, a negative school climate can be seen to have the opposite effect.

School safety involves more than not having violent acts; it includes feeling safe and not having to worry about any aspect of personal safety. “In order to be emotionally and intellectually safe, schools must go beyond the obvious checks for physical safety to create a sense of community” (Bucher & Manning, 2005, p. 57). In addition, students should find caring individuals willing to share content knowledge and human warmth. “These behaviors are generally described as including teacher immediacy, teacher clarity, teacher’s use of humor, teacher communicator style, and teacher use of narratives” (Saaverdra, & Saavedra, 2007, p. 77). Thus, an effective teacher contributes in several ways to a positive learning environment.
When thinking of challenging students, many immediately reflect on the role of the teacher. The teacher has the most contact with the student during the school day and therefore does have a huge role in motivating and challenging their students. “A teacher’s task is not only to engage students’ imagination but also to convince them that they are people of worth who can do something in a very difficult world” (Scherer, 1998, p. 9). The National Middle School Association focused an initiative in 2006 on having policy makers not ignore the needs of middle schools. Their first areas of focus, out of six areas, include that of challenging students by ensuring that all middle level students participate in challenging, standards based curricula and engaging instruction, and that their progress is measured by appropriate assessments, resulting in continuous learning and high achievement. (National Middle School Association, 2006, p. 2)

“Claims about a ‘culture of high expectations’ are undermined when school policies encourage good grades for poor student work” (Reeves, 2006, p. 92). Clearly, it takes the school community working in unison to create a beneficial school culture.

Even the facilities and grounds should be in good repair for maximum benefit of the school culture. The physical school culture is also known as the school environment and is addressed in the following section.

School Environment

School environment can range from the tone of a school, established by the administration and staff, to the physical facilities. Many students feel that if their school looks good, they are receiving a better education.

School attachment and school commitment were significantly associated with academic achievement, which suggests that as students feel a sense of attachment
and show signs of commitment to school and schoolwork, they have higher GPAs. (Stewart, 2008, p. 197)

The research does make it clear that working conditions do effect student achievement. One study involved 32,000 teachers in North Carolina being surveyed on the factors affecting the school environment. In the top three was “adequate facilities and resources” (Healthy Schools Network, 2004). The ability to make education more effective for students, teachers, and the community has to be seen as a priority before any real changes can be implemented. In order to be considered a priority people need to be informed about the consequences involved. If the community, for example, understands the benefits of improved facilities, then they will be more apt to support improvements. A positive school environment thus should be achieved through working backwards. Through viewing the many and varied benefits, a plan of action can be used to create the means to fulfill the goal. In this case, the physical, motivational, and environmental benefits are the results of a positive school environment.

Physical Benefits

Beyond students having a positive emotional feeling from a maintained school, there are physical benefits.

Well-lit, airy, and un-crowded schools could make children smarter in the future—or at least help them improve their test scores. Rising test scores at the six-year-old Manassas Park High School may be due to the building’s architectural features, such as wider hallways and furniture, improved lighting, more private study areas for students, and secure but not prison like buildings. (Wagner, 2006, p. 1)

In other words, the specific layout and design of a school can dramatically increase testing outcomes. It appears that another important determiner of student success on academic testing, beyond a generally clean school, is comfortable climate. Each
physical improvement can effect student achievement. This means that a school can make minor changes and still experience positive results.

**Motivation**

Students are motivated by a clean, updated facility and by neatly maintained school grounds. Motivation is one of the key factors in increasing student achievement; children are taught all they need to know, yet they may simply lack the desire to take the test with maximum effort. If students merely fill in random bubbles, the results will not reflect what students have been taught or retained. These scores can not be a true measure of student knowledge if students are not marking answers they truly believe to be correct.

It seems that this idea, of a constructive physical school environment, reflected in positive learning, is accepted in the educational world. Flutter (2006) states:

> Surprisingly, perhaps, it is a question that has not been widely researched in education and little is known about the relationship between physical environment and learning although some studies have shown that the school environment can have a significant influence on students’ attitude to learning. (p. 183)

This suggests that the physical environment does not necessarily directly effect student learning outcomes. Instead it appears that a positive physical environment increases students’ motivation, which in turn is positively reported in testing scores.

Regardless of whether it directly affects student learning outcomes or not, the cumulative result is positive.

**Enriching Environments**

There are those who think, “Good teachers can teach anywhere; Socrates taught under a tree” (Bradley, 2000, p. 17). Although this is true in some aspects, imagine how much more learning could take place, and does take place, when schools provide
enriching environments (Bradley, 2000, p. 17). Bradley suggests that we can do more in the way of providing excellent facilities by having a well-planned campus. “We must respect the end-users for whom we are designing” (Bradley, 2000, p. 8). When students can identify with their surroundings, they gain a sense of community with their school. In this way, students can gain a meaningful context for learning. The sense of community and participation is integral to our schools and we cannot afford to lose them. Schools must be places in which the students gain a sense of identity, the educational process becomes exciting, and the learning environment is made to seem inviting…where the members of an educational community are made to feel secure and at home. (Bradley, 2000, p. 11)

Students want to see “inspiring” and “exciting” campuses (Flutter, 2006, p. 184). “School environments should be designed to enhance the development of student brains” (Sylwester, 2009, p. 3). Clearly, students are better able to actively participate in learning when enriching environments are available.

Feasibility

It may not be feasible to physically reconstruct a school. However, if one were designing a new school they should consider the “behavioral architecture” involved (Bradley, 2000, p. 9). For those of us who work at older campuses, there are things we can do to promote a more positive, physical school environment. Things such as repainting have minimal costs. Also, some communities are willing to share in the financial burden through donation or school bond measures. There are companies that provide opportunities for funding through grants set aside for school improvements. Many times the general public, and even those involved in education, think such projects involve extensive amounts of money, however this is not always the case.
I once had an architect tell me that a school board rejected his designs because he submitted renderings in color that ‘looked’ too expensive. The architect explained to the school board that the added color was just paint and that no extra cost would be incurred. The school board told him that that didn’t matter. Whatever the cost, the population would resent the design because of the perception of expense that it created. (Bradley, 2000, p. 18)

This statement shows that when opportunities for updates or innovation are available, they may be overlooked. Appearances can be deceptive, even in education. Taking anything for granted based on superficial factors should be discouraged. The entire school community can have renovations or updates made, but it is important that everyone involved understand the costs and benefits, before judgments are made. That way, possible opportunities may be realistically considered and judged on their merits.

Assessment

Assessment has been a popular topic for many years. However, “high stakes,” “Academic Achievement Index,” and “proficient” are terms currently used as indicators of student and school achievement by governmental institutions. In recent years, students’ test scores have become the significant indicator for how schools are performing (Popham, 2006, p. 3). School performance is also tied to funding, as well as other things. According to the California Department of Education:

The Academic Performance Index (API) is the cornerstone of California's Public Schools Accountability Act of 1999 (PSAA). The purpose of the API is to measure the academic performance and growth of schools. It is a numeric index (or scale) that ranges from a low of 200 to a high of 1000. A school's score on the API is seen as an indicator of a school's performance level. The statewide API performance target for all schools is 800. A school's growth is measured by how well it is moving toward or past that goal. A school's API Base is subtracted from its API Growth to determine how much the school improved in a year. (2008, p. 1)
The relationship between API and the school environment has yet to be comprehensibly studied. This is evident from the lack of data available on the subject. However, the physical school environment, which includes facilities and grounds, is one factor that influences individual student’s testing scores. To help support this hypothesis API has been selected as a means to look at many schools, and simultaneously note their respective performances. As test scores are compiled to create an API score for each school, the numbers can then be used for comparison. By using API scores and analyzing aspects of school culture, correlations have been made to show that improvements in school culture will positively affect API. State assessment reports (such as API) are useful in spotting proficient or underperforming schools. It is also a valuable indicator of schools that are not moving, and thus stagnant. Depending on the school, and its performance, a customized plan of action can be made to improve its school environment.

While it may be up to educators to prepare students to the best of their ability, it is up to communities to ensure that the culture of learning is one that takes precedence next to other programs. If schools are more focused on better facilities, motivation, and a positive environment, then scores will increase. Taking a closer look at improving school culture will also help excite educators as well as students. Excited educators and students are better prepared to learn. This is particularly important for teachers, as they need to be able to meet the needs of students in an effective way.
Conclusion

School culture improvements include those things with a unified goal, an emphasis on learning, and a climate conducive to learning. One part of school culture is the school environment. The school environment can be divided into physical benefits, motivation, and enriching environments. Each of these items can be worked on in any educational environment. Today, there are many barriers to improving our schools, and also test scores. One large obstacle that stands in the way of improvement is limited financial resources. Another obstacle is motivation. Truly, it is a difficult time. Feasibility of projects at various sites is now under great scrutiny. Not all schools have the resources to meet their wants. By meeting the needs of the school however, progress will be made. To be able to enrich school environment, steps have to be taken to break the status quo, and enact ideas as they are deemed prudent.
CHAPTER III

METHODOLOGY AND RESULTS

Introduction

Many schools lack the positive school culture that enables students to reach their full potential. Although physical environment is not the only determiner of the school culture, it is still a large contributing factor (Flutter, 2006; Healthy School Network, 2004). Numerous schools suffer from inadequate and/or underdeveloped school facilities and grounds.

Because studies have been conducted, demonstrating close relationships between students’ learning and the school culture, one can deduce that a positive school culture provides students with the support needed for maximum learning. Since the school culture is in part composed of the physical environment, to include grounds and facilities, improvement to the physical school environment will make a positive impact on students’ learning (Bradley, 2000; Cohen et al., 2009; Flutter, 2006; Healthy School Network, 2004; Stewart, 2008).

Even though the research is there to support this, districts continue to put the upkeep of their schools at the back burner. With finances tight, when there is funding, it is spent on “urgent” needs. This causes school grounds and facilities to continue to be in disrepair.
The purpose of this project is to design curriculum that schools can use to improve a school’s culture. With schools in need of inexpensive improvements, this curriculum will provide a valuable resource to schools. In addition, this curriculum includes some ideas on how to go about acquiring additional funds for school site improvements. This curriculum includes inexpensive and easy to complete projects that do make a significant impact on school culture.

The Survey

The Physical School Environment Survey is a two part, nine question survey, which was administered through an online survey site, Survey Monkey. The selected survey population was Title I middle schools in Northern CA that had made growth, of at least 14, from 2004-2005 to 2007-2008 school years. The survey population included teachers and administrators from eight schools that met the above criteria. The one time survey is estimated to take participants approximately ten minutes to complete. (Refer to Appendix B to view a copy of the Physical School Environment Survey).

The survey was designed to determine factors that teachers and administrators, of selected middle schools, believe to have made dramatic increases in reported API. This was for the purpose of finding the relationship between school culture, specifically the physical environment, and STAR test results. If a school from the test group reports having high test scores, the results are analyzed. When their school has evidence of a positive school culture change, but no other changes are present, it can be concluded that school environment does influence student learning and performance or STAR tests. If a school does not believe they have focused on school culture, then this is
an area that research suggests can improve testing results. Therefore, a given school should focus on improving the school culture. The survey was made available to eight schools, including up to 290 participants. Twenty survey responses were returned. This is a 14.5% return rate. (Refer to Appendix C for Physical School Environment survey results).

The nine questions of the survey were designed to provide enlightening information regarding educators’ beliefs about their specific schools’ culture and its influence on STAR test results during the years of API growth. The results may show two categories: schools that feel school culture made a positive difference during selected years and schools that haven’t. The questions are split into three categories. In this way, participants will not be prompted to respond with the focus of change being on the school environment. This concept will not be brought up until the third screen in the online survey, Section #3. Because the survey is computer generated, participants see Section #1 (questions #1-3) on one page, Section #2 (questions #4-6) on the next page, and Section #3 (questions #7-9) on the last page. Questions from Section #1 help to identify the survey population. Section #2 questions focus on factors influencing STAR scores, as reported API. While the questions in Section #3 have a narrower focus and are more specific to determine if any of the increase in test scores have been because of changes to their school community. The survey questions are listed below:

1. Please define your role (teacher, administrator).

2. How many years have you been teaching? Or administrating? (1-2 years, 3-5 years, 6 or more years)

4. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?

5. Out of the factors you listed, what do you think was the most influential factor for your current school site?

6. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the test scores?)

7. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.

8. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.

9. If you would like to make any additional comments about the influence of school environment in relation to your school’s API results, please do so here.

The purposes for asking the above survey questions are as follows:

- Question #1. Clarifies whether the participants is a teacher or administrator. Teachers and administrators can have different views on what most influences their school.

- Question #2. Determines the number of years an individual has been in service. A first or second year teacher may not have enough experience or time at the selected school to see the changes.

- Question #3. Defines the teacher or administrator’s length of time at the surveyed school during the selected years. This informs one of two things; first, whether
or not the participant was present at the surveyed school during the years of growth (if there, their response is more valuable than if not at the school at all), and second, if the participant was only present for a year or two at the selected school, that may not be sufficient time to see improvements.

- Question #4. Designed to be open response so participants can respond unprompted. This question provides the surveyor with several factors a participant believes may influence test scores.
- Question #5. Narrows the list to a single factor.
- Question #6. Asks for a rationale as to why the participant feels that is the most influential factor.
- Question #7. Focuses on the school community. The purpose of this question is to determine if school community was a factor in the improvement of the scores.
- Question #8. Narrows results to the actual physical school environment.
- Question #9. Offers an opportunity for additional comments in regards to the school environment and API.

With the sample size of 290 and only 20 responses, 14.5%, the respondent group is relatively small. In the case of qualitative research, it is not always necessary to have a huge response.

While qualitative studies are not generalizable in the traditional sense of the word, nor do they claim to be,… they have other redeeming features which makes them highly valuable in the education community. (Myers, 2000, “Qualitative Studies and Generalizations,” para. 1)

For example, in this study, although there was only a 14.5% respondent group, the responses still had meaningful insight into the increase in test scores.
It is important to note that the survey results provide participants’ perspectives. Although results may differ, from what actually occurred, they are still valuable, especially when considering they are perceptions of professionals. What participants see as reality will influence their attitudes and behaviors.

Organization of the Curriculum and Resources

*Four Realistic Solutions for School Improvement: Project Ideas and Resources* curriculum is designed to be a resource for schools to improve their school environment. Two main sections included are project funding resources and four project ideas. Some of the references in the resource listings are ideas to generate funding and other supplies for completing the projects. The coordinator for implementing the projects could be district or school administrators, teachers, parents, or other community members. (Refer to Appendix A for curriculum).

The curriculum created is inspired by a review of literature on current California state testing, school culture/school environment, resources for school improvement, and survey data from eight Northern California, Title I schools.

Research Findings

Due to the current lack of funding and resources in education occurring at the same time as the demand for higher test scores, *Four Realistic Solutions for School Improvement: Project Ideas and Resources* is a meaningful curriculum for resource ideas that provide improvement to a given schools’ culture. The curriculum was also influenced by research suggesting a relationship between school culture and student
achievement. In addition, survey results showed that schools have not yet focused on physical improvements to their school as an avenue for increased student performance. Findings from the survey are summarized in the following pages. (Refer to Appendix C for exact survey results).

The results from data collected from the survey are summarized in the following:

- **Question #1: Please define your role.**
  
  Of the twenty respondents, 18 were teachers, 90% and 2 were administrators, 10%.

- **Question #2: How many years have you been teaching? or administrating?**
  
  Three respondents, 15%, had been teaching or administrating for 3-5 years. Lastly, seventeen responses, 85%, had been teaching or administrating for 6 or more years. None of the responses were from people who had only been teaching or administrating for two years or less.

  
  One respondent did not answer this question. Another respondent was only present during 2004-2005 and 2007-2008. The remaining 18 respondents were present for all four years.

- **Question #4: What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?**
  
  Factors respondents included are: student buy in/ motivation 6, lack of parental involvement, teachers focusing on key standards/ test specific curriculum 9, student
interventions, teacher collaboration 2, testing strategies/ test prep 6, administrative support and focus 2, minimum days, pressure of not meeting API, clear goals, and all academic and very little enrichment.

- **Question #5: Out of the factors you listed, what do you think was the most influential factor for your current school site?**

  The factors listed are: Teachers focus on key standards 3, testing strategies 4, lack of parental involvement, goals, pressure of not meeting their API, motivation 2, minimum days, push academic and elimination of fun classes, and collaboration.

- **Question #6: Why was that the most influential factor?**

  Responses included the following: individual student improvement, STAR test results, the students seem more apathetic, student utilize it (testing strategies), and this is the one thing that changed during the requested time period. Other responses did not indicate understanding of the question.

- **Question #7: Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.**

  A positive atmosphere, consistent staff, school wide anti-bullying curriculum and Safe School Ambassador program, new multipurpose building, communication, a focus to be more consistent across the campus (school rules, motivation assemblies, reward assemblies), implemented character education 3, leadership/ journalism class (student leaders help motivate the student community in regards to STAR testing), curriculum designed to focus on power standards, workshops and state meetings, additional texts (focuses on standards and test taking techniques), data analysis, teachers and
administrators have tried to make it a friendly environment for students, good teachers to improve themselves.

- **Question #8:** Were any parts of the school facilities and/or grounds enhanced during this time of growth?

  Trees were planted, new air conditioning vent put into the main building 3, special education and resources classrooms were rebuilt, school emblem updated and painted on the outer wall 2, new roofs and improved lighting in the gym 2, a new gym 2, flower beds were built, modernization work 2, new trees were planted.

- **Question #9:** If you would like to make any additional comments about the influence of school environment in relation to your school’s API results, please do so here.

  Of the 18 respondents, 6 wrote additional comments. Of the six, all were teachers and none were administrators.

  - “We have the most modern site in the district and a solid school culture. We are trying to eliminate the idea it’s okay to fail and to build a culture of success.”
  
  - “I believe many students feel like this school is a home away from home. They feel safe and know that many people here sincerely care about them. They are not afraid to ask questions or take an educational risk.”
  
  - “I believe too much emphasis is put on API results and not enough emphasis is placed on our ever changing school population and cultural shift from a traditional family unity to a wide variety of alternative family units as well as a lack of discipline and integrity being taught in the home.”
• “Our staff is very cohesive and comprised of ‘team players’ who cooperatively and unselfishly look for ways to help students succeed and reach their goals.”

• “Our scores will improve more when all teachers are a part of improving test scores.”

• “Until the tests grades are connected to the students, the students will not own the results. There should only be two tests. An 8th grade and High School.”

The survey results suggest that improving the physical environment was not an area schools focused on from school years 2004-2005 to 2007-2008 to cause the dramatic increase in API. However, at least one respondent did note that there were improvements to their school culture and even to the grounds and facilities. Yet, when asked earlier in the survey what significant factors caused the dramatic increase in test scores, this was not the factor selected. This survey was designed in the hopes that some respondents would indicate an improvement to the school that they felt could have contributed to increased test score. However, little supporting evidence for this theory came from the survey results, but more from the literature alone. A flaw in the survey found while analyzing the results is not being able to detect which schools responded in which way. For instance, 15 respondents could be from one site and five from another, while the five remaining school sites may not have provided any response.

Implementation

Because the review of literature provides sufficient support to suggest the positive correlation between school culture and test scores, it can be concluded that
schools need more information readily available to become educated themselves on this beneficial link for students.

The results found through the process of this project will be available through public use through a written thesis, but surveyed schools will also be notified that these project resources and ideas are available to them. Distribution of information available will delivered during the 2010-2011 school year.
CHAPTER IV

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

There is constant pressure for increasing STAR scores, as reported API. Therefore, schools look for ways, some typical and other more creative, to aid students in learning, retaining, and demonstrating their knowledge. The past few years have proven to be financially difficult for districts, even for Title I schools, who receive “additional funding.” School administrators can only help their schools so much with limited funding. Sufficient research shows that API scores increase when students learning increases. Providing a positive school culture influences student learning in a positive way. Thus, a school’s API score can increase with improvements to the school culture. One way school culture is influenced is through the physical school environment, or the school’s grounds and facilities.

Reviewing the literature provided meaningful insight on the impact of school culture on student learning. Some schools will make the government mandated API of 800 by 2013-2014 school year, while many others will fall short (Education Data Partnership, 2009). Several causes must be factored in, such as; students home environment, physical capacities, curriculum, and several others. These play important roles in a student’s education, right next to school culture.
This project has one main purpose, to aid schools in increased student learning outcomes, reported as API, through improvements to the physical school environment. Using data and information gathered from several literary sources, as well as through a teacher/administrator survey, curriculum has been created to provide resources for physical school improvements. In addition, four projects have been designed for school communities to carry out to enhance the school’s culture.

Conclusions

Reviewing the standardized assessment and school culture literature shows a relationship between the two. Although this relationship is clear, what does not appear to be happening in schools is a focus on physical school environments as a contributor to school culture, making a huge impact on student learning. Not enough studies have been conducted to state how strong of a relationship is there, but just that there is one.

Although this survey should have offered great insight on the relationship between test scores and improvements to the physical school environment, it failed to do so for two main reasons. First, the sample population and the number of respondents, was insignificant and no responses concluded that any improvements to their school occurred during the time period of API growth.

Findings in the literature state that improvements to the school will only cause the school culture to benefit, yet the survey of what is actually going on states this is not an aspect currently focused on. This project brings to light the concept that improving the school environment is of value and that there are resources available. Resources
provided, as well as four project ideas help to get schools started on improving their school culture, and in turn, cause API scores to increase.

**Recommendations**

Extensive research on school culture demonstrates its value in influencing students’ learning. As the physical school environment does have an effect on the school culture, it would seem that schools would put a greater emphasis on maintaining and beautifying their schools. However, school grounds and facilities maintenance and improvements are typically at the bottom of the needs list. More awareness needs to be made to the educational community on the benefits of improved school environment.

In creating this project it is important to note the following recommendations as well. First, there are not a large number of studies to demonstrate just how beneficial improvements to the school grounds and facilities are to school culture, just that there is a correlation. It would be helpful to run more studies on this. Second, surveys were sent, via email, to eight Northern California Title I schools, which resulted in an extremely small respondent group. The recommendation regarding the survey is to get a greater number of respondents. This may require physically visiting schools to ask for participation, email reminders, asking administrators to set aside time in a staff meeting to respond to surveys, and so forth. In addition, the survey need not be limited to Northern CA Title I schools, but any CA schools. Third, surveys were only sent to teachers and administrators. It would be beneficial to survey parents, students, and other community members. Fourth, several curriculum ideas could be developed to further enhance school culture. Lastly, a school resource pamphlet could be created to remind
educators of the importance of the school environment. The four projects created for this project are meant to be affordable and projects where the school community, especially students, can participate.
REFERENCES


Four Realistic Solutions for School Improvement: Project Ideas and Resources

A Handbook for Improving the Physical School Environment

Written By: Lauren Elizabeth Albert
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About the Author

For the past six years, Lauren Albert has taught Secondary Education within the same school district. During that time, Lauren has taught English, Social Sciences, and Computer Literacy. In addition to these district courses, Lauren has taught enrichment programs including visual arts, movie making, and math intervention. Previously, she has experience teaching in several additional schools from kindergarten through continuation high school.

Lauren has an Associate of Arts from Yuba College, as well as a Bachelor of Arts in Liberal Studies from California State University, Chico. She has a Professional Clear Multiple Subjects credential with a supplement in the Sciences. In addition, she holds Clear Single Subject credentials in Social Studies and English. Lauren has worked with the North State History-Social Science Project for four years. She has been a member of the School Site Council for three years, currently serving as Committee Chair.

Her passion for gardening has allowed her countless hours of experience with plants and effective gardening practices. Additionally, Lauren is quite creative. She enjoys painting and drawing landscape and building plans.

As one who has found that many schools lack an enriching physical school environment, she has studied research and designed curriculum to improve this. Areas of focus for school improvement projects are those with which Lauren has experience: painting and gardening.
Introduction

Overview

Tell your students, “You are somebody” and improve your test scores. “An independent study of the Washington, D.C., schools concluded that student achievement, as measured by standardized tests, would be 5 to 11 percent higher if the physical conditions of schools were improved” (Kennedy, and Agron, 2004). Provide a positive school environment by enhancing your school facilities and grounds through the following projects. The following handbook contains several projects that can be implemented in your school to improve the facilities and grounds.

The information in this handbook is specifically directed at California Title I Middle Schools, but can easily be modified for other grades and demographics. The purpose of this project was to build on school pride through improvements to the physical school environment. The handbook includes project ideas, with plans for carrying out those ideas, as well as resources for funding ideas. Along with the project ideas are lesson plans aligned with the California State Content Standards.

Using this Handbook

This handbook was designed to be used by any community member that has a desire to improve the physical school environment. It is organized in such a way as to be easily read and understood by a teacher, administrator, or any other community member who might lead a project.

There are four separate project ideas, each with a plan on how to carry out the project. Each plan includes a description of the project, first steps (approval and creating a committee), and having a plan (this varies among project, but generally includes design, supplies, action, and lesson plans).

Near the end of the handbook is a resource of funding ideas. Funding resources range from a variety of donations to opportunities.
Ideally, the projects should have minimal costs and heavy community involvement.

**Part I. Four Project Ideas**


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**Project 1. School Murals**

**Description:**

School murals not only benefit those who create them, but with careful planning can be meaningful for years after. Students that designed and created the mural have a sense of belonging. In addition, a mural based on helping others or the school mascot adds a positive atmosphere in its artistic and symbolic message.

Where to paint your school mural will depend on the design of your school, as well as approval from site and district administration. The best location for murals is where they will be most seen. For the purposes of this project, school murals will be scattered throughout the school campus. In this way, they can be appreciated by the entire school community. Having pleasing school murals will enhance the school’s appearance, which can have positive affects on student attitude (Stewart, 2008, p.197). Students and teachers should not be the only ones involved in designing, creating, or enjoying the school murals. All in connection with the school can provide a helping hand in some way.

**First Steps:**

*Understanding the Project*- The School Murals project is made up of several 2’ x 2’ mural squares painted throughout the school. These murals can be indoor, outdoor, front of the school, main hall, in the gym, on the outside of classrooms, etc. Ideally, you want them in a
location that will be seen at least once a day by all members of the school community (high traffic areas).

The murals are created by individual students, as part of a class, under the direction of a teacher, staff member, or other member of the community who acts as a committee head. For students to get the most out of this project they must be a part of the entire process; from creation through clean up.

Each mural should have an individual theme, which is decided on by the entire class, or group. Overall, the theme of the murals should be focused on being connected to the school’s environment, culture, and the local community. Anything that helps define the individuals in the school community should be considered (school logo, school colors, health, environmental friendliness, etc.).

If 20 2’x2’ murals were painted throughout the school, the total costs of supplies would be around $400.00. The best situation would be one where the community is involved in donating supplies and assisting in designing, painting, and clean up.

It is very important to consider timing in this project. First, depending on the material you are painting on, it may need extra prepping (primer, sanding, etc.). In addition, the 2’x 2’ mural space needs to be taped off and a white base layer needs to be applied and allowed to dry for at least 24 hours before classes can paint their murals. The murals can not be painted at the same time because of being resourceful, thrifty with supplies. Consider a master schedule for a time when each class can paint their mural that does not conflict with other classes.

Class mural lesson plans have been created to guide mural design to include all students within a class. Twenty-eight 3” x 3” squares are sectioned off so that each student can design and paint this space. It must be decided, with the remaining space, what will be painted and who will be painting it. Classes will choose a theme for the 3” x 3” squares, as well as the remaining space.

Another important aspect to remember is clean up. Painting can be a messy operation. Without properly cleaning up after each class uses supplies, there would be problems for the next group. Careful cleaning of paint brushes is the biggest concern as they will become hard and unusable if not properly cleaned. Be sure they are
completely clean and not soaking wet when stored so to avoid mildew.

**Approval-** Always seek approval of school administration as well as district administration and the school board before starting any project on school grounds. Submit a detailed plan to be approved (such as the one below) months in advance of the anticipated project start date to your site administrator. Ask who else should be involved in the approval and all other parts of the project (ie., Maintenance).

Be sure to have your staff on board. For each class to have a 2’x 2’ mural, each class needs a leader to be the head of their subcommittee (this could be the teacher, but does not need to be). Introduce the idea to staff members, after administrative approval. Explain the positive impact this project can have on their school community and seek the staff’s support in carrying out this project.

**Creating a Committee-** After being approved to begin the project, create an Oversight Committee and appropriate subcommittees. The Oversight Committee should be made up of two lead individuals responsible for seeking approval, organizing the school wide project (mural sections), ensuring locations, acquiring supplies, staying within budget, and any other needs of participants.

Although you want the entire school community to be involved, staff does not need to be on the oversight committee. Teachers and staff members function as subcommittee leaders to their own 2’x 2’ mural. Community members should be invited to help design and aid students in the process. Subcommittee leaders should see to it that community members are involved in the project.

Decide if the Oversight Committee is going to do the prep work on the mural spaces or if another subcommittee is going to be created. The prep work includes preparing the space by cleaning, priming (if necessary) and taping off the 2’x2’ mural space. In addition, pint size paints in basic colors need to be divided up ahead of time for the 20 different classes. Some colors may require additional paint.
Having a Plan:

1. Organize Your Space
   A) The Oversight Committee needs to walk around the school with a school map looking for possible mural sites. They need to mark on the map where 20 2’x2’ murals will be painted.
   B) Approve locations through administration prior to painting anything.
   C) Add to the map where each class’ mural will be located.

2. Create a Supplies List
   A) To accomplish the basic needs of this project the following supplies are needed: 2 rolls of 2” painter’s tape, approximately 35 small brushes for individual student use, 2 larger brushes for painting the background of the 2’x2’ space, 1 gallon of white acrylic or latex exterior paint*, pint size paints in basic colors (red, orange, yellow, green, blue, purple, black, and white), several containers that close for allotting paint to the 20 different classes, paper plates for student mixing palettes, and clean up supplies.

*The paint needs to be based on the location (ie. Painting on surfaces previously painted using oil based paints must be painted with oil based paint. Painting on water based paint needs to be painted with water based paint).

3. Acquire Supplies
   A) The Oversight Committee should first seek supplies through donations. If supplies can not be donated, at full or in part, the Oversight Committee needs to then purchase the remaining supplies.

4. Section off Mini Murals
   A) The Oversight Committee, or assigned subcommittee, needs to prepare mini mural spaces. Review the map for mural locations.
   B) Prep the mural area. This includes cleaning the area, taping the 2’x 2’ mural space, and painting with primer, if necessary.
Next, (after allowing primer appropriate time to dry) paint the entire 2’x 2’ mural space with white paint.

C) Tape off 3” x 3” squares just inside the perimeter of the mural space, using extremely narrow (1/4” max) painter’s tape. This should leave a nice set of white lines when the tape is removed.

5. Class Participation

Lesson #1> Practice the Painting Skill

(Lesson to be completed before actually painting on the designated mural site).

Lesson Subject: Visual Arts
Learners’ Grade Level: Grade 5, 6, 7 or 8
Planned Lesson Duration: 50 minutes

LESSON TOPIC: Students will learn how to paint in a 3” x 3” space (using select brushes).

RATIONALE/OVERVIEW: Allowing children opportunities to practice painting with minimal guidance helps provide children with the chance to create individualized works of art. Practicing painting in the 3” x 3” space will prepare them for their section of the mural. Additionally, the skill of painting can be beneficial throughout a lifetime.

Standards: Visual Arts 5.2.7 Communicate values, opinions, or personal insights through an original work of art.
6.2.4 Create increasingly complex original works of art reflecting personal choices and increased technical skill
7.2.7 Create a series of works of art that express a personal statement demonstrating skill in applying the elements of art and the principles of design.
8. 2.7 Design a work of public art appropriate to and reflecting a location.

OBJECTIVES: Students will paint unique works of art that communicate a personal statement in a 3” x 3” area.

INSTRUCTIONAL STRATEGIES: Direct instruction and self discovery

SDAIE TECHNIQUES AND PRACTICES: Visual materials, scaffolding, topic appropriate to grade level

PROCEDURES:
**Introduction:** Explain to students that they will be given paper with 3” x 3” squares already outlined. Their job is to practice painting one basic item or scene within the square. (Examples may include a flower, a building, a sunset, etc.) They will have six practice squares. Let students know that coming up with their own idea for the box is part of what makes their work unique.

**Activity Sequence:**
1. Explain to students they should choose a background color and fill the 3” x 3” space entirely without going outside of the boundary line. The end result will look best if students paint only in one direction (top to bottom or side to side). Next, they will need to wait for the paint to dry a little.
2. Once the paint has set enough, students will be able to draw the basic outline of their item or scene with pencil.
3. Next, students should paint the item(s) by starting with things that will be lighter colored and then paint the darker colors. (Students should clean their brush between colors for best results). Any highlights or outlining should be done last and it is helpful to have the other layers fairly dry first.
4. Allow students to use as many of the boxes as they need to practice.

**Closure:** Ask students if it was difficult to stay in the 3” x 3” space. Have a brief discussion on the importance of staying within a boundary.

**Assessment:** Students and teachers can assess student work by checking for pictures that vary from student to student (unique works). While monitoring student work, the teacher needs to ask students what makes that picture personal.

**MATERIALS:**
Acrylic paints in red, orange, yellow, green, blue, purple, black, and white
Small brushes (the same ones that will be used on the actual murals)
Cleaning supplies
Painting paper/ or canvas paper (with six 3” x 3” square predrawn on them)
Painting trays (plastic trays, ice cube trays, or something else to put paint in for individual student use)
Pencils

**REFERENCES:**
Lesson #2 > Design Mural Space

Design Mural Space
(Lesson to be complete after Practice the Painting Skill and before painting on the actual mural site).

Lesson Subject: Visual Arts
Learners’ Grade Level: Grade 5, 6, 7 or 8
Planned Lesson Duration: 50 minutes
LESSON TOPIC: Students will learn how to create a 3” x 3” area using paint and following a specific theme.

RATIONALE/OVERVIEW: Learning that they can use their own creativity to express a theme provides an opportunity for increasing self esteem. There is no right or wrong answer, which means every student will be successful as long as they complete the task.

Standards: Visual Arts 5.2.7 Communicate values, opinions, or personal insights through an original work of art.
6.2.4 Create increasingly complex original works of art reflecting personal choices and increased technical skill
7.2.7 Create a series of works of art that express a personal statement demonstrating skill in applying the elements of art and the principles of design.
8. 2.7 Design a work of public art appropriate to and reflecting a location.

OBJECTIVES: Students will be able to design and paint an original work of art that communicates values, opinions, and/or personal insights within a 3” x 3” area.

INSTRUCTIONAL STRATEGIES: direct instruction and guided discovery

SDAIE TECHNIQUES AND PRACTICES: Visual materials, scaffolding, topic appropriate to grade level

PROCEDURES:
Introduction: Show students the piece of paper with the six 3” x 3” squares (Handout #1). Tell them they will be designing and painting one of these squares somewhere on the school campus as part of a class 2’ x 2’ mural. Let students know that they need to stick within the theme the class will decide on.
Activity Sequence:
1. Decide on a theme.
   a) Explain that a theme is a unifying focus. Help students understand the theme should reflect the whole class.
   b) Give students a few minutes to think of five theme ideas. Invite student to consider what students are interested in, what the school means to them, what is the school mascot, or what is the surrounding area like (environment, climate, entertainment, etc).
   c) Allow students time to share with the class one of their theme ideas by asking for student input and having them write their idea on the white board.
   d) Narrow down the theme ideas by checking for reoccurring themes and interests. Ask for reasoning behind themes and help students to come to a conclusion.
2. Design your space.
   a) Using the “Design Your 3” x 3” Space” handout, practice designing your space. Use pencil (to include colored pencil) and remember the theme. Tell students to think in general terms and not to use too much detail (this needs to be something relatively easy to paint). Monitor their work, praising the individuality, and guiding as needed keeping in mind these will be painted by the student.
   b) Once students have come up with an idea they like, have them circle the design (they may not have needed all six boxes).
3. Paint.
   a) Distribute practice painting paper with two or more 3” x 3” painting squares. Explain to students they should choose a background color and fill the space entirely. The end result will look best if students paint only in one direction (top to bottom or side to side).
   b) They will need to wait for the paint to dry a little. Next, students can draw out their design using pencil right on the painted surface.
   c) Have students paint according to their previously created design.
4. Write
   a) Have students write a minimum of five sentences, paragraph form, describing their reason for the design they painted. They need to explain their personal values, opinions, and/ or insights that are reflected in their work.

Assessment: Check that students have created at least one design on the 3” x 3” squares of the handout. Check that students were able to paint within the 3” x 3” space a unique design. Read the quick write to ensure that students have a personal connection to their work.

MATERIALS:
Pencil
Colored pencil
Handout #1 “Design Your 3” x 3” Space”
Acrylic paints in red, orange, yellow, green, blue, purple, black, and white
Small brushes (the same ones that will be used on the actual murals)
Cleaning supplies
Painting paper/ or canvas paper (with six 3” x 3” square predrawn on them)
Painting trays (plastic trays, ice cube trays, or something else to put paint in for individual student use)

REFERENCES:
Handout #1
DESIGN YOUR 3” x 3” SPACE

Name____________________  Date ___________  Period _____

[Blank space for design]
Lesson #3 > Paint It

(Paint It
(Lesson to be completed after Lesson #2 Design the Mural Space and after area has been properly prepared).

Lesson Subject: Visual Arts
Learners’ Grade Level: Grade
Planned Lesson Duration: 50 minutes
LESSON TOPIC: Students will learn to publicly display their individual work of art.

RATIONALE/OVERVIEW: Providing students the opportunity to display personally created work of art builds student confidence and contributes to a sense of connectedness to their school.

Standards: Visual Arts 5.2.7 Communicate values, opinions, or personal insights through an original work of art.
6.2.4 Create increasingly complex original works of art reflecting personal choices and increased technical skill
7.2.7 Create a series of works of art that express a personal statement demonstrating skill in applying the elements of art and the principles of design.
8. 2.7 Design a work of public art appropriate to and reflecting a location.

OBJECTIVES: Students will be able paint their personally designed 3” x 3” square on a mural site within the school.

INSTRUCTIONAL STRATEGIES: Direct Instruction

SDAIE TECHNIQUES AND PRACTICES: Verbal and non verbal cues, demonstrating

PROCEDURES:
Introduction: Explain to students the location of your class mural. Let them know they will be taking turns painting their design on to the wall of the school. Explain that many artists are able to display their work publicly (Ie. Diego Rivera and Leonardo Dí Vinci) and this is their chance to do the same.
Activity Sequence:
1. Have students collect their brush, paint, and practice design painting and head out to your mural space.
2. Select about six students to paint first. Have them spread out to different areas on the 2’ x 2’ square that are sectioned off for 3” x 3” student work.
3. Continue to rotate in students to paint their 3” x 3” square.
Closure: Have each student think of at least one positive to say regarding the mural so far.

Assessment: Check that students have painted within the designated 3" x 3" square. As long as students have copied their approved practiced design they will be unique.

MATERIALS:
Small brushes (the same ones that will be used on the actual murals)
Cleaning supplies
Painting trays (plastic trays, ice cube trays, or something else to put paint in for individual student use
Students’ previously created 3" x 3" design
Paints* in red, orange, yellow, green, blue, purple, black, and white

* The paint needs to be based on the location (ie. Painting on surfaces previously painted using oil based paints must be painted with oil based paint. Painting on water based paint needs to be painted with water based paint).

REFERENCES:

References


Project II. 42’ x 28’ School Garden

Description:

A school garden can be used to enhance curriculum, it provides beauty and life, as well as plants to clean the air and give off pleasant fragrances. “School-age children need to experience the world in miraculous, positive ways. Building a garden might seem like a luxury, but in reality it teaches children about planning, responsibility, measurement and time” (University of Illinois Extension, 2010).

A location should be chosen on school grounds where students and faculty can actively participate in creating and maintaining plants. A school community garden can be planted with edibles or without. If your school does not have the space to dedicate to a plot of land, create planter boxes instead that can be located throughout the campus. Planting around a school is as valuable as planting in a set school garden.

The school garden can be worked in by an individual class or by the entire school community, and everyone in between. The school will benefit most from having the involvement of all members of the school community.

There are several benefits of having a school garden. Students can benefit from the hands-on learning experience provided in the outdoor setting. In this, students learn to work cooperatively with one another. School spirit can improve for the entire school community as students and staff beautify and care for their campus. “The results of qualitative, quantitative, and survey research have supported the conclusion that school gardening can improve students’ test scores and school behavior. Teachers believe that gardens promote academic instruction” (Blair, 2009, p. 35).
First Steps:

Understanding the Project- The 42’ x 28’ school garden is constructed by local community members (to include school staff) as volunteers. This garden is large enough to have 20 planter boxes, which means, 20 classes or groups of staff members can maintain their own space. The space is not too large as to be overwhelming or extremely costly. The garden is fenced on the perimeter with one entry gate, has a garden shed for storing tools and supplies, contains planter boxes to be used by classes and other members of the school community, has a convenient water sources, and gravel walkways.

Committees are organized to assist in the completion of sections of the project. In addition, subcommittees can be used to cover specific aspects of the garden (ie acquiring supplies). Supplies should be sought first through donations, and then purchased as needed. Resources are explained in further detail in Part II of the project.

If no materials are donated, an estimated budget for materials for a 42’ x 28’ school garden would be around $3000.00. Ideally, a community would come together to support such a venture and costs would be minimal (constant water supply cost, etc.)

It is important to consider timing. This project would be better completed during summer break or other times when school is not in session. It can be relatively noisy and there will be workers on campus. In addition, when gaining initial approval for the project find out if there are district policies, permits and/ or timelines regarding such a project that must be met.

Another vital aspect to consider is to have clean up of each project be a top priority. This way the following project will not be held up by having to clean up after the previous sub-committee.

Lastly, be sure to have a plan for maintenance of the garden. A good idea is to have a calendar in which teachers and staff members can rotate responsibilities involved in maintenance (ie. Watering over the summer or during breaks). Most of the maintenance should be kept up by the individuals/ or classes according to their class planter box. Weeding and watering are responsibilities of the class (or staff). Keep the above considerations and tips in mind to have a happy gardening experience.
Approval- Getting administrators involved early in the process is very important. You need to present a clear plan (such as the one described below) to your principal, superintendent, and school board. Then ask them if they are supportive of your project. A school garden will take a piece of property, a water supply, and maintenance. If these are things your administration is not willing to support, you may need to redesign your school garden (ie. Plant in planter boxes around the school instead). Whatever you plan to do, you need to seek approval first.

Start by running the idea by your site administrators. If your site administrators are supportive of the plan, ask for their suggestions on whom else to include in the project’s approval and carry out. Next, seek the support of your district superintendent. Your superintendent is in charge of school property, so it is important to include him/her in this process. School Board members also have a say in what goes on within your district. Present the idea to your board members as well.

Creating a Committee- Once you have approval of your administration, search for people of varying skill to assist in acquiring supplies and labor. A committee is responsible to organize the work, see that work is completed in a timely and safe manner, and that the project is within the allotted budget. You should be a member of the committee. Find other school employees, parents, administrators, school board members, and community members to make up your committee.

Your committee should be separated into subcommittees, so find at least eight members for your main Committee. The following list describes committee member’s responsibilities; (Note: each subcommittee is responsible for clean up once their portion of the project is complete).

Leaders- This should be yourself and one other individual. You two make up the supervising committee. You are responsible for making sure all components of the project are with in appropriate timing, budget, regulations, etc.
Find at least one licensed contractor to assist in water, shed, and fence projects. Be sure to have a realistic budget and funding before starting any work.

**Water** - Ask maintenance for the location of the water supply. The best water supply would be a spigot on the fence line of the garden. If there is a spigot within 200 feet, garden hose can be run to the area. If you have a water source near the garden location, it can be tapped into and a water faucet can be added. (If it needs to be trenched, and have plumbing added, you may need a building permit). A water tank can be used to store water and hoses can be run to and from the tank to the garden if the above mentioned are not available. The water committee also needs to provide hoses, make sure the water source is turned on, and there is a shut off valve. Find sources for supplies (including hose) and workers. Follow up to make sure the water source is secured and set up correctly.

**Shed** - Decide if your project includes building a shed or buying a prefabricated shed. If you are building a shed, look into permits (city and/ or county); find sources of supplies: wood, roofing materials, windows, fasteners, hinges, etc.; and sources of workers. Ensure shed is built, or set correctly in the right location.

**Fence** - Find sources for fence, posts, cement (for setting posts), and gate, as well as workers to build. See that the fence is build according to size and shape of plan.

**Planter Boxes** - Find sources of wood (cedar or redwood), screws, and potting soil. See to it that the planter boxes are made according to plan.

**Gravel** - Find a source of gravel, workers to install it, wheel barrows, shovels, and rakes. Ensure that the gravel is in the appropriate location.

**Tools and Plants** - Find sources for tools to be permanent in the garden through donation, and/ or purchase. Acquire the following tools and supplies: spade, square shovel, rake, two hose hangers, five to ten trowels, pruning shears, a
lock for the shed, a lock for the garden gate, plant food, extra potting soil, mulch, plants, and seeds. All of the above items may be stored in the shed. Do not plant the seeds or plants at this point!

Having a Plan:

1. **Designing Your Garden**
   A) Map out your garden design on paper. Be sure to include water supply, fence, shed, planter boxes, gate, and gravel. Having all of these items on a main map will make the project flow when different subcommittees will be looking for the location of their project.
   
   B) Draw out the garden using chalk lines, or ground marking spray paint. Be sure to measure out the fence line with the assistance of the licensed contractor. Having clear lines will make the work easier to the building crews.

2. Create a Supplies List
   A) Each subcommittee should be able to come back to the leaders with a complete supplies list and possible places to obtain supplies (Supplies include: fencing, wood, metal shed, gravel, spade, square shovel, hose, class set of trowels, potting soil, deck screws, seeds, etc.)

3. Acquire Supplies
   A) Send out subcommittee leaders to obtain supplies and return them to the building site at the appropriate time.

4. Build the Garden
   A) Order must be considered when building the garden. (Note: building a fence before putting in a shed may mean the shed will not fit through the garden opening).
   
   B) Communicate with subgroups to be ready with supplies and workers when their project is “on deck” and “on stage”.
   
   C) Have subcommittee leaders present and helping throughout their project.

5. Class Visits
Lesson #1> Deciding What to Plant

(Quiz to be completed after garden is complete and as a beginning to class visits).

Lesson Subject: Science
Learners’ Grade Level: Grade 6
Planned Lesson Duration: 50 minutes

LESSON TOPIC: Students will learn that plants need five main things to grow successfully: correct amounts of sunlight, good soil, appropriate spacing, and the right amount of water. In addition, students will learn that climate plays a role in plant growth.

RATIONALE/OVERVIEW: Learning that plants need specific resources in order to grow properly helps students understand why plants naturally occur where they do. Additionally, having students be a part of the planning process (in planting their class garden space) will help them have a more vested interest in planting and maintaining their garden.

Standards: Science 6.5.e Students know the number and types of organism an ecosystem can support depends on the resources available and on a-biotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

OBJECTIVES: Students will be able to correctly identify plants that fit certain soil, climate, spacing, sunlight, and water supplies. Students will be able to read and evaluate information to decide what plants can be planted at their school site.

INSTRUCTIONAL STRATEGIES: Teacher led class discussion and student self inquiry

SDAIE TECHNIQUES AND PRACTICES: Visual materials, scaffolding, topic appropriate to grade level

PROCEDURES:
Introduction: Explain to your students how your school has recently put in a garden and they get to have a hand in planting and maintaining it.
Activity Sequence:
1. Brainstorm, as a whole class, purposes of a garden. As students suggest ideas, have them write their suggestion on the white board. (Responses may include, but are not limited to: food, beauty, therapeutic, exercise, gets you outside, entertainment, cleaner air (Carbon Dioxide to Oxygen), environment for animals and insects, etc.)

2. Explain that gardens mainly vary because of needs and wants of people. Once the gardener decides what they want or need, they have to consider: the soil type, the amount of sunlight, the local climate, the water supply, and available space.

3. Go visit the garden and have students record in their gardening journal what type of soil is present in their garden box, how much water is available, how many hours of sunlight will the garden receive, what the local climate is like, and how much space is available to your class for planting.

4. (You may return to class or hold the following activity in the garden). Have pictures of plants, plants, or seeds of a variety (ie. Rose bush, fruit tree, sunflower, daisy, carrot, radish, watermelon, bleeding heart) and the planting instructions (including spacing). Have students decide if the selected items would be good for the available space.

5. Using computers, have students research what kind of plants they would like to plant (that fit the garden conditions). Have students record, in their gardening journal, at least five plants that could be grown in the garden box.

**Closure:** Review with students that there are many reasons for having a garden. Ask students what the main five conditions are a gardener needs to be aware of in order to have successful plant growth. Lastly, collect student journals.

**Assessment:** Review Step 5. in students’ garden journals. Check that the plants they have chosen correctly fit the garden conditions. Students that have four or five correct plants that they would like to plant in the garden box show evidence of understanding the concept. Students with three or less plants need additional assistance in understanding which plants can grow in what locations and why.

**MATERIALS:**
Premade garden journals (a notebook where students enter information they are asked to and observation they make. Journal entries should always include the date the entry was made).

White board and pens
Information on the soil type in the garden box (a copy of the potting soil ingredients)
Eight different pictures, plants, or seeds for Step 4.
Access to the garden
Access to computers

**REFERENCES:**
Lesson #2 > Planting

Planting
(Lesson to be completed after garden is complete and as a second step in class visits. Be sure to plant in your designated class plot).

Lesson Subject: Science
Learners’ Grade Level: Grade 5-8
Planned Lesson Duration: 50 minutes
LESSON TOPIC: Students will learn that how to properly plant seeds (or plants) according to planting directions. Students will enter their observations and hypothesis in their garden journal.

RATIONALE/OVERVIEW: Providing students the opportunity to actually plant their own seeds will aid in their investment of the entire growing process. Additionally, students will experience a new task that has practical life applications.

Standards:
Science:
Investigation and Experimentation 5.6 Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will: a. Classify objects in accordance with appropriate criteria. b. Develop a testable question.
Investigation and Experimentation 6.7 Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will: a. Develop a hypothesis. b. Select and use appropriate tools and technology to perform tests, collect data, and display data.
Investigation and Experimentation 7.7 Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will: a. Select and use appropriate tools and technology to perform tests, collect data, and display data.
*Investigation and Experimentation* 8.9 Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations.

Students will: a. Plan and conduct a scientific investigation to test a hypothesis.

**OBJECTIVES:** Students will be able to plant a seed in their designated class garden box. Students will record their thoughts and feelings of their planting experience. Students will practice forming a hypothesis.

**INSTRUCTIONAL STRATEGIES:** Direct Instruction, guided discovery

**SDAIE TECHNIQUES AND PRACTICES:** Demonstrating/ modeling and active learning

**PROCEDURES:**

**Introduction:** Show students the back of a seed packet (planting instructions). Point out the variety of information available- light, row spacing, plant spacing, planting depth, days to germination, and plant height. Explain that they will be receiving their own seed to plant according to the listed specifications.

**Activity Sequence:** (In the garden)
1. Have students gather around the class planter box.
2. Ask each student to review their seed planting instructions.
3. Allow students to each plant one seed according to the directions.
4. Have a couple students lightly water the entire planter box.
5. Have students record their experience (Remind them to use appropriate English Language Arts skills).
6. Discuss with students the meaning of a hypothesis. Have students record a hypothesis for their seed in their garden journal. (Example: Number of days their seedling will appear above the soil and why).

**Closure:** Review with students seeds have specific conditions in which they will grow best. Decide how the seeds will be kept moist until germination. Finally, collect student journals.

**Assessment:** If students plant their seed correctly, they will have understood the planting instructions. Check students’ journals for complete notes. If the hypothesis is measurable or observable then they have a viable hypothesis.

**MATERIALS:**
Copies of a seed packet (to be used for students to follow along in introduction and to take to the garden as a reminder of how to plant their seed. In addition, you may have student attach their seed packet to their garden journal for future reference).
Premade garden journals (a notebook where students enter information they are asked to and observation they make. Journal entries should always include the date the entry was made).

Seeds or plants (with planting instructions) NOTE: Seeds that germinate quickly are more likely to excite students. These seeds will mature rapidly allowing students to make frequent observations that include change in plant grow. Some examples include: bush beans, radishes, lettuce, cucumbers, carrots, beets, spinach, and squash.

Note: You could have students mark their seed with a Popsicle stick with their name on it.

REFERENCES:


Additional Applicable Standards English Language Arts:
Reading Comprehension (Focus on Instructional Material) 5.2.2 Analyze text that is organized in sequential or chronological order.

Written and Oral English Language Conventions 5.1.0 Students write and speak with a command of standard English conventions appropriate to this grade level.
Sentence Structure 1.1, Grammar 1.2, Punctuation 1.3, Capitalization 1.4, & Spelling 1.5

Reading Comprehension 6.2.5 Follow multiple-step instructions for preparing applications

Writing Strategies 6.1.0 Students write clear, coherent, and focused essays. The writing exhibits students’ awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed. Organization and Focus 1.1

Written and Oral English Language Conventions 6.1.0 Students write and speak with a command of standard English conventions appropriate to this grade level.
Sentence Structure 1.1, Grammar 1.2, Punctuation 1.3, Capitalization 1.4, & Spelling 1.5

Writing Strategies 7.1.0 Students write clear, coherent, and focused essays. The writing exhibits students’ awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed. Organization and Focus 1.1, 1.2, & 1.3

Written and Oral English Language Conventions 7.1.0 Students write and speak with a command of standard English conventions appropriate to the grade level.
Sentence Structure 1.1, Grammar 1.4, Punctuation 1.5, Capitalization 1.6, & Spelling 1.7
Writing Strategies 8.1.0 Students write clear, coherent, and focused essays. The writing exhibits students’ awareness of audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed. Organization and Focus 1.3

Written and Oral English Language Conventions 8.1.0 Students write and speak with a command of standard English conventions appropriate to this grade level. Sentence Structure 1.1, 1.2, 1.3, Grammar 1.4, Punctuation and Capitalization 1.5, & Spelling 1.6

Lesson #3 > Maintaining Your Garden Space

Maintaining Your Garden Space

(Lesson to be completed after garden is complete, and seeds are planted).

Lesson Subject: Science
Learners’ Grade Level: Grade 5-8
Planned Lesson Duration: 50 minutes

LESSON TOPIC: Students will learn that how to properly maintain a planted seeds (or plant). Students will enter their observations in their garden journal.

RATIONALE/OVERVIEW: Providing students the opportunity to tend their own seed will aid in their understanding of plant growth. Students will also gain experience in diagramming their plant through the maturation process.

Standards: Science
5.6.g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.
6.7.c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.
7.7.d. Construct scale models, maps, and appropriately labeled diagrams o communicate scientific knowledge.
8.9.e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.

OBJECTIVES: Students will be able to care for a seed/ plant. Students will record a diagram of the seed plot. Students will measure and record the height of the seed.

INSTRUCTIONAL STRATEGIES: Direct Instruction, guided discovery

SDAIE TECHNIQUES AND PRACTICES: Active learning

PROCEDURES:
Introduction: Take students back to the garden to visit the seed they previously planted. Let them know that today they will be participating in the first of many observations that will be sketched and graphed.

Activity Sequence: (In the garden)
1. Have students find their seed and sketch, in their garden journal, what their plot looks like (it should just be flat soil).
2. Have students record their seeds height/depth. (-1/4” for most seeds—depends of the planting instructions)
3. Have students predict (and record) what height/ or depth their seed will be at the next visit to the garden.

Closure: Inform students that they will continually revisit the garden to update their observations on their seed/plant. Explain that as they record more information on plant height, they can begin to graph the information and make inferences on growth patterns.

Assessment: View student journals to ensure they have appropriately sketched their plot and recorded the seed height (depth at this point).

MATERIALS:
Premade garden journals (a notebook where students enter information they are asked to and observation they make. Journal entries should always include the date the entry was made).
Students’ previously planted seeds

REFERENCES:

References


Project III. Paint with School Colors Benches, Doors, etc.

Description:
“Studies have shown that the school environment can have a significant influence on students’ attitude to learning” (Flutter, 2006, p. 183). Part of the school environment includes the physical buildings and grounds. If these are in disrepair, they send a message that the students and staff aren’t worthy of having a nice campus. Something as simple as repainting worn surfaces or painting in school colors can increase school pride. School pride affects students and staff’s attitude and therefore affects the learning process.

Refinishing benches, doors, railings, trim, and so on should be done throughout school campuses when they become faded or worn. School colors should be used on items to be refinished, especially on items that are used frequently.

Curriculum can tie into this project. For example, before beginning, students can learn about complementary colors and proper painting techniques. These topics directly relate to the needs of the project. The more involved students are in the process, the more they will appreciate the outcome.

First Steps:
Understanding the Project- This project is very basic in nature, but can have a great impact on your school environment. Select items in your school that need refinishing (ie. A fresh coat of paint or repainting in school colors). The items chosen should be those that are used daily by the majority of the school community.
Main items to be refinished could include classroom, main hall, cafeteria, gym doors and/or trim; outdoor trash cans; picnic tables; outdoor benches; classroom railings; etc.

A committee should be organized to guide the project. This committee should be small (one to three people). The committee should seek donations for supplies and volunteers. Supplies for this project, if none are donated, varies depending on how many items are to be refinished. If no supplies are donated costs for materials is approximately $515.00 when priced for 10 wooden picnic tables, 50 metal doors, and five 50-gallon trash barrels.

Approval- As with all projects, entirely new or touch up work needs to be approved by local school administration as well as district administration. Share a plan with your administrators before starting any work. A sample plan is outlined below. It is always a good idea to get the approval of your School Board as well.

Creating a Committee- Create a lead committee, which can include yourself and one or two additional individuals. The Lead Committee is responsible for seeing that the project is started and completed within the designed timeline. The committee should also seek necessary approval and ensure that supplies are organized and purchased. The lead committee also has the ultimate responsibility to see that workers are doing their best, and that all is cleaned up at the conclusion of the project.

If you have several items to refinish, you may need subcommittees. These subcommittees may be organized by location of the school being worked on or what is being worked on (i.e. Doors, picnic tables, trash cans, etc.) The latter is better because the supplies, prep work, and painting would be the same for similar objects. Additionally, the process will be more efficient to have someone whose sole role is to divvy up paint into smaller containers to be taken to painting locations.
Having a Plan:
1. Identify Objects to be Refinished
   A) The Lead Committee should walk through campus with a campus map labeling which objects are going to be refinished.

2. Create a Materials List
   A) The basic materials for this project include paint*, sandpaper (80 grit), sponge rollers and sponge brushes, painter’s tape, masking, cups for holding paint, drop cloths, and clean up supplies.

   *The paint needs to be based on the location (ie. Painting on surfaces previously painted using oil based paints must be painted with oil based paint. Painting on water based paint needs to be painted with water based paint).

3. Acquire Materials
   A) The Lead Committee needs to purchase materials not available through donations.

4. Refinish Objects
   A) Prep area: Sand areas as needed. Note: For large gouges on wooden objects like a picnic table, exterior wood filler may be required prior to sanding. Make sure area is free from dust and dry before proceeding. If needed, clean off areas to be refinished by dusting (damp cloth). The idea is to make things look nicer than they were found. Careful prepping and follow up will make this project a successful one.

   B) Tape and mask areas that are not receiving paint (door knobs, hinges, etc.). See Application Techniques lesson below for proper masking directions. Lay drop cloths down and secure them in place with a little tape. Use primer, if needed.

   C) Paint items. Begin by applying a light, even coat of paint. Use brushes for edging doors and getting in between boards on picnic tables. Use rollers for large flat areas.
5. Clean Up
   A) Be sure that all painter’s tape is removed once objects are sufficiently dry. Clean up includes cleaning brushes, throwing out trash, and returning any moved items to their proper locations.

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**Lesson #1> Color Wheel**

*(Lesson to be completed before refinishing objects)*

**Lesson Subject:** Visual Arts  
**Learners’ Grade Level:** Grade 7  
**Planned Lesson Duration:** 50 minutes  
**LESSON TOPIC:** Students will learn about classifying and associating colors using paint.

**RATIONALE/OVERVIEW:** Learning that colors can be complementary and analogous helps students when making their own artwork. Students will also gain experience in properly mixing paints and understanding that the amount of a given color against varying amounts of another color affects shades (ie ratios).

**Standards:**  
7.2.4 Develop skill in mixing paints and showing color relationships.

**OBJECTIVES:** Students will be able to recognize primary, secondary, and tertiary colors. Students will be able to create samples of complementary and analogous colors.

**INSTRUCTIONAL STRATEGIES:** direct instruction and guided discovery  
**SDAIE TECHNIQUES AND PRACTICES:** Visual materials, scaffolding, topic appropriate to grade level

**PROCEDURES:**  
**Introduction:** Show a color wheel to students. Point out the primary, secondary, and tertiary colors. Explain to students they will be mixing primary colors to create secondary and tertiary colors. Explain the process for getting supplies (which should include instruction on how much paint to use—approx. 1 teaspoon of each color).  
**Activity Sequence:**  
1. Give each student a paper plate and have them fold it into six equal sections.  
2. Have students put about 1 teaspoon of the red, yellow, and blue into three different sections (skipping every other space).
3. For this step make sure students are mixing toward the edge of the plate, so there is room near the center for the tertiary colors. Have students mix about half of the red and yellow in the empty space between them to make orange. Have students mix about half of the yellow and blue in the empty space between them to make green. Have students mix about half of the blue and read in the empty space between them to make purple. Ask students what these colors are called (secondary colors).

4. Have students mix about half of their secondary colors with each other in the same manner to create tertiary colors. Ask them what these colors are called (tertiary colors).

5. Have students label the three levels of paint on their plate: primary (1), secondary (2), and tertiary (3).

6. Ask students which colors they think are complementary. Teach students that complementary colors are across from each other on the color wheel.

7. Explain that analogous colors (hues) are next to one another on the color wheel.

8. Allow students to have another plate, folded into six sections, and this time, they do not have to take half of each primary color to make secondary colors, but can take varying amounts to make different shades.

**Closure:**
Have students clean their brush and desk. Then ask students to explain primary, secondary, tertiary, complementary, and analogous to another student, using their painted plate.

**Assessment:** Students need to have primary colors in the first ring, on every other segment, labeled with a “1”. Secondary colors are also on the first ring, alternating among the primary colors, labeled with a “2”. Tertiary colors need to be at the center of the plate, labeled with a “3”. Check that complementary colors are across from each other on the color wheel and that analogous colors are next to one another.

**MATERIALS:**
- A color wheel
- Red, yellow, and blue paint
- Large paper plates (best if not too firm)
- Small paint brushes
- Water containers
- Fine tip black markers

**REFERENCES:**
Lesson #2 > Understanding Substrates and Adhesion

Understanding Substrates and Adhesion
(Lesson to be completed before refinishing begins).

Lesson Subject: Science
Learners’ Grade Level: Grade 5-8
Planned Lesson Duration: Part I: 50 minutes on at least 2 different days, minimally 24 hours apart; Part II: an additional 50 minutes, one week after day one
LESSON TOPIC: Students will understand different materials and types of paint that are best suited for the given material to be painted (substrate).

RATIONALE/OVERVIEW: Students learn that different substrates require different chemical make ups to create acceptable adhesion.
Standards: 5.6.h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

OBJECTIVES: Students will be able to discover which available paints adhere best to five different substrates. Students will draw accurate conclusions after conducting a scientific experiment.

INSTRUCTIONAL STRATEGIES: direct instruction, group experimentation

SDAIE TECHNIQUES AND PRACTICES: modeling, small group work

PROCEDURES:
Note: Prepare students ahead of time. Ask them to wear clothes that can get paint on them.
Introduction: Explain to students that they will be participating in a scientific experiment. They will need to follow step carefully and record their observations.

Activity Sequence:
PART I. DAY 1: 1. Have students put on gloves. Organize students into five different groups. Give each student a small paint brush. Have each student get out a piece of paper and pencil.
2. Have students fold the paper in half lengthwise once, and then into five sections widthwise. Have students label the five sections inside the left margin: Styrofoam, Plastic, Wood, Metal, Clay and label the first column “Scratch” and the second column “Water”.

3. Give the following directions: Each group will receive eight of the same objects. Each group will also receive four different types of paint. Each student can take one of the objects and paint one of the four types of paint on to it. **You need to have used each of the different types of paint twice (two objects will have latex, two will have acrylic, two will have enamel, and two will have polyurethane). Decide who is going to paint which one in your group. Once you have painting your object evenly, set it in the designated location (a side shelf for example). The paint will need to dry over night. Once you have put your object down, wash your brush and return paint samples to the counter. After cleaning up, record on the back of the binder paper what paint you think will be adhere (or stay) best on which of the surface types provided.

4. Distribute supplies and allow students to get to work according to the directions given.

PART I: 24 HOURS LATER
1. Have student retrieve the object they painted on the previous day.
2. Have students record any observations they see under the “Scratch” column, next to the object they have.
3. Hand out a penny to each student and ask them to try to scratch the paint. Have students record further observations. (Does the paint scratch at all? In small or large flakes, peel off completely, etc?)
4. Have student put their object into a container of water to be left for several days to a week.

PART II: A FEW DAYS TO A WEEK LATER
1. Have students retrieve their objects from the water.
2. Have students record any observation under the “Water” column, next to the object they have.

Closure: Allow students time to share their observations. Start with the Styrofoam group. Have them stand and show their objects to the rest of the class. Have the class record their observations of the objects in the appropriate spaces. Have the Styrofoam group return their items to the counter. Have the plastic group share next, then wood, metal, and clay, in the same manner as the Styrofoam group. Once all groups have shared summarize which paints adhered better to which substrates.

Assessment: Students will have accurately filled out their record sheet with observations.

MATERIALS:
Disposable gloves
Eight Styrofoam cups
Eight hard, smooth plastic cups
Eight pieces of wood
Eight pieces of metal
Eight pieces of clay (could be clay pot dishes)
Five sets of paint samples:
  - Exterior latex (water based) paint
  - Acrylic paint
  - Enamel
  - Polyurethane
One penny for each student
One small paint brush for each student

**NOTE:** If your school does not allow the use of enamel or polyurethane within the classroom, the teacher can paint the objects ahead of time and the students can still run the experiments.

**REFERENCES:**

Additional Applicable Standards:
6.7.d. Communicate the steps and results from an investigation in written reports and oral presentations.
7.7.e. Communicate the steps and results from an investigation in written reports and oral presentations
8.9.a. Plan and conduct a scientific investigation to test a hypothesis.

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**Lesson #3 > Application Techniques**

**Application Techniques**

(Lesson to be completed before refinishing objects).

**Lesson Subject:** Visual Arts

**Learners’ Grade Level:** Grade 5-8

**Planned Lesson Duration:** 50 minutes

**LESSON TOPIC:** Students will learn about masking and proper paint application techniques.

**RATIONALE/OVERVIEW:** Learning how to mask and use proper painting technique will prepare students to participate in the refinishing project.

**Standards:** 5.2.0 Creative Expression and a basic skill necessary for achieving other Ca Content Standards

**OBJECTIVES:** Students will be able properly mask off objects and paint effectively.
INSTRUCTIONAL STRATEGIES: Direct Instruction

SDAIE TECHNIQUES AND PRACTICES: Visual Materials

PROCEDURES:
Introduction: Explain the significance of the lesson, which is to practice masking and appropriate painting techniques that can be used in the whole school project. Show students an item that has been masked and painted appropriately. Show students an item that has not been masked properly. Show students an item that has not been painted properly.

Activity Sequence:
Masking
1. Demonstrate how to mask off an area on a white board. Then use a marker to color the remaining area. Remove the masking to reveal white space, unmarked.
2. Have students mask off an area. Then color the remaining area. Have students remove the masking to reveal white space.
3. Explain the importance of this skill. It is used for taping off windows, door knobs, hinges, and so on so the metal does not get painted. This is beneficial for looks and more importantly so hinges and knobs function properly. Allowing paint to dry on a hinge can cause a door to not open, as well as hinder its ability to receive proper lubrication.
4. Have students clean up supplies.

Painting
1. Demonstrate proper brush strokes: light even strokes, side to side or top to bottom- be consistent. Explain that the door nails in their board are like the door knob. Show how to properly mask (leave masking back on the nail 1/32 to 1/16 away from the surface to be painted). You do not need to cover the nail entirely, just 1” or so around the bottom edge and up. Explain that you will not peel back the paint until it is dry. Explain where students need to put their wet paint board and that they need to clean up their supplies when finished.
2. Allow students to choose paint, get a brush, two one inch pieces of masking tape and get a board.
3. Have students tape off their nail as demonstrated.
4. Have students paint their board according to proper brush technique.
5. Have students clean up supplies.
6. Once paint is dry, have students remove the tape gently.

Closure: Explain to students that these skills are important and proper technique will not only help the item look good, but will also project the item better.

Assessment: Brush strokes should be minimal, but if visible, running in the same direction across the entire board. The nail should be free from paint (except about 1/32-1/16 from the board, which can have paint).
MATERIALS:
Masking tape
White boards (for each student)
White board pens & erasers
Examples:
  Correctly refinished (masking and painted)
  Incorrectly masked
  Incorrectly painted
Acrylic Paints
Brushes
Small piece of wood with two nails in it (for each student)

REFERENCES:

**Project IV. Plant Trees with Identification Labels**

**Description:**

Planting trees is rewarding to participate in as well as to enjoy for years to come. Adding identification tags allows the physical environment surrounding the school campus to become an outdoor classroom. Not only will trees enhance the campus in terms of adding to the curriculum, trees also provide shade and convert carbon dioxide to oxygen.

The location of planting is an incredibly important aspect of this project. Although hardy, and generally low maintenance, trees need adequate nutrients, sunlight, and water. Additionally, because these trees are going to be studied, they need to be located where they can be accessed. Planting must take place in areas free from obstructions, such as telephone or power lines.

A wide variety of trees, appropriate for the given climate zone, is necessary. Students studying the trees can make comparisons and deduce why certain trees exhibit certain characteristics. Having a variety of trees will also enhance the beauty of the campus. Be careful when choosing trees to select those trees that are easy to maintain and grow well in a given climate.

The community can be involved in planting trees, identifying trees, and even studying the variety of trees planted at your site.

**First Steps:**

*Understanding the Project*- Planting trees with identification posts includes having an appropriate location for trees, approval to plant on campus in said locations, acquiring trees, planting trees, plans
for maintenance of trees, creating identification tags, and creating a tree guide.

The entire school community, as well as the local community should be involved in planting trees, and the rest of the work should be divided up among members of the school community and local community. A lead committee and subcommittees should be organized to make this project run smoothly and be a success.

This project is created to include planting ten different trees around a school campus, and creating numbered identification posts and an identification guide for the trees. The trees should be about 2-5 years old at the time of planting. This varies depending on the tree species. It is a good idea to have trees that are not too young.

There are resources for organizations and companies that make tree donations (see Part II. Resources). However, if these are not available at the time of need, the cost of this project is about $450.00. This includes ten trees, identification posts, and 35 tree guides.

Find the best time of year to plant in your area when considering your planting timeline. Generally, the best times of the year to plant trees are the spring or fall (treeplanting.com).

Approval- Always seek the approval of local school administration and district administration. In addition, the idea could be presented to your school board. You are modifying school grounds, which in many cases is not taken lightly. Keep people informed, so they can be a helpful part of the project. Depending on your maintenance plan, it may cost the district money to tend and water the trees. Therefore, make sure the project is clearly described and plans are in place for not only planting, but for maintenance.

Creating a Committee- Select a lead committee. The lead committee should be one to three people who can ensure timelines are watched, trees are planted correctly, and subcommittees carry through with their responsibilities. Subcommittees might include: Tree Location and Species, Material Acquisition, Planting, Identification, and Identification Book.

Committee duties include:
Lead Committee- The lead committee is responsible to see to it that the entire project is carried out according to the plan. Check in frequently with subcommittees to see that their responsibilities are taken care of.

Tree Location and Species- This committee needs to choose the location of the trees and tree types, with the assistance and approval of the lead committee and school administration. Once a list of trees is developed it should be given to the Material Acquisition Committee (see below). The Tree Location and Species Committee is one of the first to begin their duties; make sure they do so in a timely manner.

Material Acquisition- Obtain the list of tree species from the Tree Location and Species Committee. Next, seek donations for trees desired. If no donations are made, purchase the desired trees. In addition to trees, this committee is responsible for any supplies needed to plant the trees, including preparing the area. Some basic supplies include: shovels, potting soil, fertilizer, rakes, hand truck/ dolly, and tree stakes. This committee needs to also acquire enough posts for numbering each tree.

Planting- The Planting Committee organizes a schedule and groups to plant the trees at the specific locations. The actual committee does not have to plant the trees. However, someone who knows how to properly plant the trees should be present to instruct others planting each tree. The Planting Committee is responsible for mulch, fertilizer, and clean up of the area.

Identification- This committee needs to have numbered posts prepared ahead of time. This is done by taking 4” x 4” cedar, redwood, or pressure treated post, cutting them into two foot lengths with a 70-80 degree angle at the end, and burn or carve a number into the top (the number corresponds to the tree type). In addition, the Identification Committee must have a map of which number post goes next to which tree.

Identification Book- The Identification Book Committee is responsible for creating 35 tree identification guide books.
This includes designing, purchasing materials, and finding a convenient place to store the books (such as the school library).

Having a Plan:
1. Identify and Map Sites for Tree Varieties
   A) Have the Tree Location and Type Committee take a map of the school as you walk the campus marking appropriate locations for trees (consider tree type to needs- water, sun level, space) on your map. Have some tree types in mind that are grown easily with minimum maintenance for your area before taking the walk. This way, you are simply selecting locations for trees.

2. Acquire Trees and Materials
   A) Have the Materials Acquisition Committee gather all planting materials early on in the process, except for the trees which should be brought to the site on the day of or day before planting.

3. Plant Trees
   A) Have the Planting Committee carry out their plans on who is planting which tree and where each is to be planted.

4. Apply Identification Numbers
   A) Once trees are planted, the Identification Numbers Committee should already have numbered posts ready to install. Install the numbered post about two feet away from the base of the tree with the number pointing outward away from the tree.

5. Create Tree Identification Book
   A) The Tree Identification Book Committee can be created at any point in the project, but there must be clear communication between Tree Location and Type Committee, Planting Committee, and Tree Identification Committee so the trees are planted and numbered according to the location on the map. This way the book will be correct.

6. Class Visits
Lesson #1 > Photosynthesis

Photosynthesis
(Lesson to be completed before or after trees are planted).

Lesson Subject: Science
Learners’ Grade Level: Grade 5-8
Planned Lesson Duration: 50 minutes

LESSON TOPIC: Students will learn that trees need food, water, and sunlight in order for the tree to grow properly.

RATIONALE/OVERVIEW: Learning that trees need food, water, and sunlight will help students understand why planting locations vary based on different needs of different trees.

Standards: 5.2.f. Students know plants use carbon dioxide (CO₂) and energy from sunlight to build molecules of sugar and release oxygen.

OBJECTIVES: Students will be able to observe and record the effects of photosynthesis.

INSTRUCTIONAL STRATEGIES: direct instruction, demonstration

SDAIE TECHNIQUES AND PRACTICES: Visual materials

PROCEDURES:
Introduction: Explain that plants need food, water, and sunlight to survive and that they need these resources in varying degrees based on plant type. Explain photosynthesis’ main role: taking in sunlight energy and changing it into sugar the plant can use. A byproduct of photosynthesis is oxygen.

Activity Sequence:
1. (One to two hours before the lesson, fill an aquarium with water, place pond weed in a jar, and turn the jar upside down in the tank. Note: keep the tank covered with a towel before use to keep it cool and to keep out the sunlight).
2. Have students get out paper to take notes and sketch what they see.
3. Uncover the tank, being sure it is receiving sunlight. As the photosynthesis occurs, oxygen bubbles will form on the leaves. Allow students to record their observations at this point and after about 30 minutes. Bubbles should gather in the jar if left long enough.

Closure: Explain that because trees have different shapes, and makeup, they need varying levels of sunlight for proper growth, but they all need sunlight for photosynthesis.

Assessment: Check students’ observation notes and sketches for completeness and accuracy (observations of Step 1 and 3).
MATERIALS:
aquarium
jar
Canadian Pond Weed (Elodea)
paper

REFERENCES:


Additional Applicable Standards
6.5.a. Students know energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis and then from organism to organism through food webs.
7. 1.d. Students know that mitochondria liberate energy for the work that cells do and that chloroplasts capture sunlight energy for photosynthesis.
8.6.b. Students know that living organisms are made of molecules consisting largely of carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur.

Lesson #2 > Soil

Soil
(Lesson to be completed before or after trees are planted).

Lesson Subject: Science
Learners' Grade Level: Grade 5-8
Planned Lesson Duration: 50 minutes
LESSON TOPIC: Students will learn that soil has a certain pH, or alkaline/acid level.

RATIONALE/OVERVIEW: Providing students with hands on experience with pH testing will give students a better understanding of pH. In addition, soil pH testing is a skill needed when planting trees.

Standards:
8.9.a Plan and conduct a scientific investigation to test a hypothesis

OBJECTIVES: Students will be able to test the pH of four different soil samples and determine if their pH is suited for certain trees.

INSTRUCTIONAL STRATEGIES: guided discovery

SDAIE TECHNIQUES AND PRACTICES: experimentation, visual aides
PROCEDURES:

Introduction: Show pictures of four different trees varieties (Apple, Birch, Maple, Willow). Explain that these trees, just like all plants need certain soil in order to properly grow. “Soil can be anywhere on a scale from acidic to basic. pH is a measure of acidity vs. alkalinity in a substance. pH is measured by the number of hydrogen atoms in a solution and uses a scale of 1 to 14. 1 is extremely acidic and 14 is extremely alkaline (or basic). 7 is neutral” (Tree Planting Guide, n.d.). Explain to students they will be testing four different soil samples and matching the four trees to their ideal soil.

Activity Sequence:
1. Have students get into groups of four and gather supplies (soil samples, pH test kit, and paper)
2. Have students divide their paper into four sections and label them with tree names and pH levels “Apple (5-6.5), Birch (5-6), Maple (6-8), Willow (6-8)”.
3. Explain how to use the pH test in the soil samples. Tell students to record the pH for the different soils. Then have students write which soil sample would work best with which tree.

Closure: Ask students to share, in a whole class discussion, what they discovered.

Assessment: Students accurately record which trees match the four soil types best.

MATERIALS:
pictures of four trees (Apple, Birch, Maple, and Willow)
pH tests (1 per group)
paper
2 cups soil from four different pH level soil- labeled 1, 2, 3, 4 (per group)

**For best results find/ prepare soil ahead of time to be sure it will match the pH needs of the trees. Also, select trees to your area for the lesson; this will make the lesson more realistic for your students.

REFERENCES:


Additional Applicable Standards
5.6.f Select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations.
6.7.b Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

7.7.a Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

Lesson #3 > Plant Identification Tour

(Revision: Lesson to be completed after trees are planted and identification books are complete).

**Lesson Subject:** Science

**Learners’ Grade Level:** Grade 5-8

**Planned Lesson Duration:** 50 minutes

**LESSON TOPIC:** Students will learn how to identify tree types.

**RATIONALE/OVERVIEW:** Learning to identify tree types is important because the identifying skill can be used to help students identify other plants (edible, non-edible, plants used for remedies, etc.).

**Standards:** 5.6.a Classify objects (e.g., rocks, plants, leaves) in accordance with appropriate criteria.

**OBJECTIVES:** Students will be able identify plants based on specific criteria (leaf shape, bark, etc.).

**INSTRUCTIONAL STRATEGIES:** Direct Instruction, deduction

**SDAIE TECHNIQUES AND PRACTICES:** hands on learning, observations, modeling

**PROCEDURES:**

**Introduction:** Explain that today you will be using the newly planted trees like an outdoor classroom. Explain that students are like investigators trying to solve a mystery. They must use clues about the tree to decide what the tree is. Explain that students need to take paper (numbered 1-10) and a writing utensil to record the tree names once they’ve deduced the answer. Each student (or partners) needs to carry with them a Tree Identification Guide.

**Activity Sequence:**
1. Model how to decipher a tree using clues from the identification guide.
2. Have students break up into partners or small groups and start them around campus according to the directions. (Let students know what your time frame is.
This should take about 45 minutes—walking and identifying trees. Also, tell students where to meet back up when time is up).

**Closure:** Have students gather back up and allow students to share what they discovered (review correct answers for 1-10). Ask students if there were any trees that were more difficult to decipher, or any that were easier. Collect Tree Guides and student work for evaluation.

**Assessment:**
Check that students properly recorded trees.

**MATERIALS:**
- paper
- Tree Identification Guide (created for your school)

**REFERENCES:**

References


T.H.E. Publisher. (2009). Ed publisher donates trees to schools. THE Journal. 36(10), 8


Part II. Resources

Resources for Funding Ideas

Even the best ideas need appropriate resources to become reality. There are several opportunities for labor and financial assistance, if sought. The following can be used as a starting point to procuring needed resources for physical school improvement projects.

Exploring Possible Resources:

First, your greatest resources are the members of your local community. These are the students, relatives of students, school board members, school staff, and all other community members. These individuals have the greatest stock in your school. From these people you will find helping hands and supplies. Your community may even have local volunteer organizations looking for opportunities to help.

Second, your local school district is required to hold 3% of the general fund for a Routine Restricted Maintenance Fund. This is for improvements to the school facilities and grounds beyond daily maintenance. Routine upkeep comes from the regular district funds. School districts can also “receive state funds for deferred maintenance projects as long as they provide matching local funds” (EdSource, 2010). Ask your school district if there are any funds available for school improvement or if money can be made available.

Third, another option is to see if your community would support a school improvement bond measure. A school bond measure provides financial assistance to your school through property taxes. They are generally very inexpensive per tax payer. However, bond measures may take a fair amount of time to prepare and pass. School Bonds fall under the category of municipal bonds. For more
information on how to create a school bond measure see Ed Source at http://www.edsource.org/iss_fin_sys_facilities.html.

Fourth, there are online businesses and non-profit sources that may help in your area. Some ideas are in the following list.

- **National Education Association:** The National Education Association website has links to several grant opportunities. Grant offers vary from year to year, but continually have grants for school improvement projects. You may need to be creative in order to earn the grant (ie. have a student lead the project). This is an excellent starting point for finding a variety of grants (National Education Association, 2010).

- **California Department of Education:** The California Department of Education has references for grants and financial assistance. These offers vary in nature and have deadlines (California Department of Education, 2009).

- **Home Depot:** The Building Healthy Communities Grant Program through the Home Depot is a grant program offering $2,500 to schools for improving the physical environment in their community. The grant comes in the form of Home Depot gift cards and materials from the store (Home Depot, 2006).

- **Lowe’s Toolbox for Education:** Lowes offers up to $5,000 to schools who apply for the Toolbox for Education grant. The grant can be used for grounds and facilities repair and construction. 10% of the total grant award can be used toward outside resources (contractor, consultation, etc.). Lowe’s prefer projects that involve the assistance of the local community (Lowes, 2008).

- **Box Tops for Education:** There are four main ways to earn money for your school through Box Tops for Education. You can clip Box Tops from General Mills products for 10 cents each, shop online through specific retailers for up to 15% donation to your school, buy books through the Reading Room for up to 6% donation, and/ or buy school supplies for up to 2% donation to your school. It is simple to sign up for the Box Tops for Education program. Your school may already even have an account. Once you send in your Box Tops, a check is sent to your school for the amount you earned at one of two distribution dates throughout the year (General Mills, 2009).
- **Arbor Day Foundation:** Disney and the Arbor Day Foundation have teamed up to give away free trees each fall. Visit their website to sign up for free trees. For a $10 membership, you can receive 10 trees for no additional cost. These 10 trees can be various varieties. This is a great way to complete Project 4: Plant Trees with Identification Tags (Arbor Day Foundation, n.d.).

**Final Thoughts:**
The most important thing to remember is to do something, big or small, but do something. The four ideas described are meant to be completed by the school community, with the assistance of the local community and with minimal funding. These four projects are more than a starting point for improving your school’s physical school environment.
References


Physical School Environment Survey

Informed Consent

My name is Lauren Albert. I am a Graduate Student in Education: Curriculum and Instruction option at California State University, Chico. I am also a secondary teacher. You have been invited along with other administrators and teachers to participate in a voluntary survey, the purpose of which is to determine teachers’ and administrators’ perspectives of the factors effecting student achievement on STAR (Standardized Testing and Reporting Program) Assessments. The results from the survey will be used in a Master’s project under the direction of Dr. Lynne Bercaw and Dr. Cris Guenter of CSU, Chico.

I am asking that you participate in the study through answering a brief survey. The survey is comprised of nine questions; three of which are “Fill in the Bubble”, and six are “Short Answer.” This survey should take about ten minutes. The survey will be available for a response on www.surveymonkey.com through May 15, 2009. As this is an online source, there is virtually no way to connect your responses with your identity. Thus, responses are kept confidential.

There is no anticipated risk or benefit for participation. This survey is voluntary. As such, there is no penalty if you do not participate or if you chose to stop during any point in the survey.

Your participation in the following survey is greatly appreciated. As the results will be published, in the form of a master’s thesis, I appreciate your thoughtful responses. Thank you, in advance, for taking a few minutes to fill out the following survey.

To begin, simply click on the link below:
http://www.surveymonkey.com/s.aspx?sm=mXzNWvC6w8Kq3Ax_2fOXfjfQ_3d_3d

If you would like to view the results of this survey, please reply to this invitation with your email address.
**Physical School Environment Survey**

**Part I.**

1. Please define your role:
   - □ Teacher
   - □ Administrator

2. How many years have you been teaching?
   - □ 1-2 years
   - □ 3-5 years
   - □ 6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - □ 2004-2005
   - □ 2005-2006
   - □ 2006-2007
   - □ 2007-2008

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**Part II.**

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)

---

**Part III.**

4. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.

5. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.

6. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.

I appreciate you taking the time to thoughtfully respond to this survey. Thanks again!
APPENDIX C
SURVEY RESULTS

SurveyMonkey - Survey Results

Displaying 18 of 18 respondents
Response Type: Normal Response
Custom Value: empty
Response Modified: Fri, May 8, 2009 8:43:46 AM

1. Please define your role.
Teacher

2. How many years have you been teaching? or administrating?
6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   2004-2005
   2005-2006
   2006-2007
   2007-2008

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?
   Teachers focusing on key standards that are tested. Student buy in of significance. Parental support.

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   Teachers focus on key standards.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   With a focus on the essential standards teachers can plan lessons that review the skills on a regular basis thus increasing student comprehension and retention.

1. Was any part of the school community improved upon during this time of growth (2004-2006)? Please explain.
   We started teaching character traits like respect, responsibility, and integrity.
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   Trees were planted throughout the campas. New airconditioning vents put into main buildings.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.

   No Response
survey title: Increase in Test Scores

current report: Default Report

Displaying 17 of 16 respondents

Response Type: Normal Response
Custom Value: empty
Collector: Test Scores Survey (Web Link)
IP Address: 207.62.250.115
Response Started: Mon, May 4, 2009 10:06:58 AM
Response Modified: Mon, May 4, 2009 10:12:17 AM

1. Please define your role.
Teacher

2. How many years have you been teaching? or administrating?
6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
No Response

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
Teachers teaching to the test, making sure that the students bubble the correct test and version

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
Correct test and version

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
If the test or version is wrong, then the scores are not correct.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
NA

2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.
NA
3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.

Until the test grades are connected to the students, the students will not own the results. The High School Exit Exam is an example of students having to pass to graduate. There should only be two tests: An 8th grade and High School. The state could save a lot of money by not giving the STAR.
### Increase in Test Scores

<table>
<thead>
<tr>
<th>current report: Default Report</th>
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</thead>
</table>

Displaying 16 of 18 respondents

**Response Type:** Normal Response  
**Collector:** Test Scores Survey (Vato Link)  
**Custom Value:** empty  
**IP Address:** 207.62.250.114  
**Response Started:** Sun, May 3, 2009 3:19:37 PM  
**Response Modified:** Sun, May 3, 2009 3:27:46 PM

1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   - Teacher focus, student buy in, administration support

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   - Teacher focus on teaching important topics and not much else.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   - There is no real evidence other than individual student improvement.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   - Good teachers try to improve themselves and be more efficient every year.
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   Not aware of any

3. If you would like to make any additional comments about the influence of school environment in relation to
   your school’s API results, please do so here.

   Our scores will improve more when all teachers are a part of improving test scores.
### Increase in Test Scores

**Survey Title:** Increase in Test Scores

**Current Report:** Default Report

<table>
<thead>
<tr>
<th>Displaying 15 of 16 respondents</th>
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</thead>
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<td><strong>Response Started:</strong> Fri, May 1, 2009 2:17:09 PM</td>
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1. Please define your role.
   - Teacher

2. How many years have you been teaching? or administrating?
   - 6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?
   - I believe the lack of parental involvement tremendously has impacted the STAR scores. Many times the teachers act as both teacher and parent.

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   - Lack of parental involvement.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   - Students are not receiving the necessary help at home.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   - The teachers and administrators have tried to make it a friendly environment for the students.
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   Not that I am aware of.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   No Response
survey title:
Increase in Test Scores

current report: Default Report

Displaying 14 of 18 respondents

Response Type: Normal Response Collector: Test Scores Survey (Web Link)
Custom Value: empty IP Address: 207.62.260.114
Response Started: Fri, May 1, 2009 1:59:40 PM Response Modified: Fri, May 1, 2009 2:12:40 PM

1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   2004-2005
   2005-2006
   2006-2007
   2007-2008

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?
   Better monitoring of students through increased data analysis of performance on standard-based curriculum. Focused preparation of students with test-specific materials. Eliminating parts of the curriculum are not test-specific.

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   Focused preparation of students with test-specific materials.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   As our text books and other curricular materials become more focused on the STAR Test and Standards-based in nature, everything we do in school points us (and the students) towards the instructional content that is on the test. Having test-specific preparation going on throughout the year, and then reinforced right before taking the test gives students and increased “top of the mind awareness” regarding test-specific information.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
No, not that I am aware of.

2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   No, not that I know of.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   Our staff is very cohesive and comprised of "team players" who cooperatively and unselfishly look for ways to help students succeed and reach their goals. Our increased API is due to the great team effort we exhibited and the students really stepping up to meet the challenge with individual and collective pride.
**Survey title:**

**Increase in Test Scores**

**Displaying 13 of 18 respondents**

**Response Type:** Normal Response  
**Collector:** Test Scores Survey (Web Link)

**Custom Value:** empty  
**IP Address:** 207.02.250.114

**Response Started:** Fri, May 1, 2009 8:47:06 AM  
**Response Modified:** Fri, May 1, 2009 8:54:56 AM

1. Please define your role.
   
   Teacher

2. How many years have you been teaching? or administrating?
   
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   
   Teaching, reviewing, and understanding standards based curriculum Everyone geared toward a clear goal

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   
   Goals- we have goals set by the state, as well as goals as a district, and by a school.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   
   Goals are the major driving force behind our actions

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   
   What we were teaching became more specific. It also affected how teachers analyze student data (standards based test) You can tell what standards you needed to teach more in depth or that you need to teach it differently.
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   Yes, special ed and resource classroom were rebuilt. Brand new buildings with kitchen and bathroom to serve the small population of students that qualify for these programs.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   No Response.
survey title: Increase in Test Scores

Displaying 12 of 18 respondents:

Response Type: Normal Response
Collector: Test Scores Survey (Web Link)
Custom Value: empty
IP Address: 207.82.250.114
Response Started: Fri, May 1, 2009 7:25:57 AM
Response Modified: Fri, May 1, 2009 8:01:25 AM

1. Please define your role.
   Teacher

2. How many years have you been teaching or administrating?
   6 or more years

3. Were you present at your current school during the years (check ALL that apply):
   2004-2005
   2005-2006
   2006-2007
   2007-2008

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?
   I believe that pressure put on teachers and students to succeed or else there will be negative consequences either by the state or the school. Everyone feels their job performance is directly tied to the schools API performance. Also there are many after school interventions held for students that reinforce the importance of passing state standards which are supposed to be tied directly to the STARS Test.

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   Fear of the school not meeting API and being taken over by a state authority which would mean losing our freedom to teach the curriculum as we believe benefit our students needs.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   Every teacher and students is trying to the best of their ability to reach the state goal for our school. We are very serious about our testing to the point of being under a great deal of stress. There is much anxiety felt by both the staff and teachers best on achieving our STAR goal.
1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
Yes, we were sent to workshops and state meetings to help us learn how important meeting our API and state standards goals. Also, additional text were purchased to teach both standards and test taking techniques.

2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.
Yes, I believe the main building received a new air conditioning unit. We also the school emblem updated and painted on the outer wall.

3. If you would like to make any additional comments about the influence of school environment in relation to your school’s API results, please do so here.
I believe too much emphasis is put on API results and the not enough emphasis is placed on our ever changing school population and cultural shift from a tradition family unit to a wide variety of alternative family units as well as a lack of discipline and integrity being taught in the home. (character). I believe this to be true because fewer parents spend family or quality time with their children. Instead children are hussled off to organized sports or other social activities. It is my belief not enough face to face communication is being made in the family.
## Increase in Test Scores

**Survey Title:** Increase in Test Scores  
**Current Report:** Default Report  

Displaying 11 of 18 respondents

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<td>Fri, May 1, 2009 6:34:42 AM</td>
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1. Please define your role.  
Teacher

2. How many years have you been teaching? or administrating?  
5 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)  
- 2004-2005  
- 2005-2006  
- 2006-2007  
- 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?  
No Response

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?  
No Response

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)  
No Response

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.  
No Response
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   No Response

3. If you would like to make any additional comments about the influence of school environment in relation to
   your school's API results, please do so here.
   No Response
Survey title: Increase in Test Scores

Displaying 10 of 18 respondents

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1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   - Teacher collaboration, students/attitudes to do their best, intervention process, teachers' attitudes, curriculum used

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   - Attitude of both staff and students

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   - If teachers believe the students can do their best, then the students will also believe in themselves. Students' attitudes play a major role in how they approach the test and how they take the test.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   - A character education program was included in the school day and this allowed for students and teachers to engage in discussions re character, responsibility, integrity, etc. Also, a leadership class/journalism class was included in the
school day. This has involved students in the decision making process and also allowed them to help motivate the student community in regards to STAR testing.

<table>
<thead>
<tr>
<th>2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
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</table>

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<th>3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe many students feel like this school is a home away from home. They feel safe and know that many people here sincerely care about them. They are not afraid to ask questions or take an educational risk.</td>
</tr>
</tbody>
</table>
# Increase in Test Scores

**Current Report:** Default Report

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<td><strong>Response Started:</strong> Thu, Apr 30, 2009 4:56:56 PM</td>
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</tbody>
</table>

1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

---

### 1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?

I think going to minimum days helped, we also made an effort to get buy in from the kids... incentives to work hard and an atmosphere of effort.

### 2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
Minimum days ease "brain fry".

### 3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
We didn't have minimum days early on; kids weren't doing well transitioning from testing back to class and back to testing the next day.

### 1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
Not really.
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   We had an upgrade of the A/C and heating, new roofs and improved lighting in the gym. Doubt this helps STAR scores much.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   We have the most modern site in the district (one that might be closed if the financial picture dims) and a solid school culture. We are trying to eliminate the idea it's okay to fail and to build a culture of success.
### Increase in Test Scores

**current report:** Default Report  

Displaying 8 of 18 respondents

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</tr>
</tbody>
</table>

1. Please define your role.  
   Administrator

2. How many years have you been teaching? or administrating?  
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)  
   - 2004-2005  
   - 2005-2006  
   - 2006-2007  
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?  
   Emphasis on teaching the standards. Teaching good test taking skills. Various incentives for students doing their best on the test.

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?  
   Teaching the standards/standards interventions.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)  
   STAR test results.

4. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.  
   Implemented some Character Education.
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<th>Question</th>
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<td>2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.</td>
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<td>3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.</td>
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**survey title:**

**Increase in Test Scores**

**current report:** Default Report

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1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   The push to all academic and very little enrichment. The stress of having to do better for the sake of the API or AYP not for themselves.

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   The push to academic and elimination of fun classes that hook students.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   I don’t have hard evidence. The students seem more apathetic. We push them demanding more and more.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   Parents are always involved. We have an active PTO. There was a focus on campus to be more consistent across the campus. School Rules, Motivation assemblies, reward assemblies.
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
A new gym was built, flower beds were built and are waiting flowers. We went through modernization work.

3. If you would like to make any additional comments about the influence of school environment in relation to your school’s API results, please do so here.
   No Response
Survey title
Increase in Test Scores

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1. Please define your role.
Teacher

2. How many years have you been teaching? or administrating?
3-5 years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   - Lessons focused on standards
   - Teacher collaboration
   - Test Prep

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   - Collaboration

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   - Teachers have time to preview results and build lessons from these results

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   - Communication
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2006)? Please explain.

No

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.

No Response
### Survey Title:
Increase in Test Scores

#### Displaying 4 of 18 respondents

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1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?
   - Administrations focus on raising the scores

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   - Trimester bench mark testing

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   - Don’t know

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   - Yes a new multi purpose building was built
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.
   yes, new roofs were put on, new trees were planted

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   ope
### SurveyTitle: Increase in Test Scores

Displaying 3 of 18 respondents

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1. Please define your role.
   Administrator

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2006-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   We focused more standards based instruction. We purchased state adopted intervention models and we were trained in some of Dennis Parker's methods for increasing test scores

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   I honestly wish there was a way I could tell which was the most important. Since I have no data to tell me, I cannot make a guess.

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   No Response

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
We adopted a school wide anti-bullying curriculum and in 2008 we implemented the Safe School Ambassador program.

2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   none. We went through a campus modernization during the summer of 2003.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   No Response
**Survey Title:** Increase in Test Scores

**Current Report:** Default Report

Displaying 2 of 18 respondents

<table>
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<th>Response Type: Normal Response</th>
<th>Collector: Test Scores Survey (Web Link)</th>
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1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2006
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students’ STAR (API) results over the past four years at your current site?
   No Response

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   No Response

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   No Response

1. Was any part of the school community improved upon during this time of growth (2004-2006)? Please explain.
   No Response
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   No Response

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   No Response
### Increase in Test Scores

Displaying 1 of 18 respondents

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1. Please define your role.
   Teacher

2. How many years have you been teaching or administrating?
   3-5 years

3. Were you present at your current school during the years: (Check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   No Response

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   No Response

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   No Response

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   No Response
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)?
   Please explain.
   No Response

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
   No Responses
survey title: Increase in Test Scores

Displaying 19 of 20 respondents

Response Type: Normal Response
Custom Value: empty
IP Address: 70.204.220.212
Response Started: Mon, Jan 18, 2010 2:15:03 PM
Response Modified: Mon, Jan 18, 2010 2:24:14 PM

1. Please define your role.
Teacher

2. How many years have you been teaching? or administrating?
6 or more years

3. Were you present, at your current school, during the years: (check ALL that apply)
   2004-2005
   2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   Teaching students test taking strategies and motivated teachers

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   Teaching students test taking strategies

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   For myself, I see it as the most influential factor because I directly observe my students utilizing it.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   We had a pretty consistent staff during this period of time. That has now started to change.

2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.
   Not that I'm aware of.
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<th>3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.</th>
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Survey title: Increase in Test Scores

Displaying 20 of 20 respondents

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1. Please define your role.
   Teacher

2. How many years have you been teaching? or administrating?
   3-5 years

3. Were you present, at your current school, during the years: (check ALL that apply)
   - 2004-2005
   - 2005-2006
   - 2006-2007
   - 2007-2008

1. What factors do you think caused the dramatic increase in students' STAR (API) results over the past four years at your current site?
   - motivation (rally) and testing strategies

2. Out of the factors you listed, what do you think was the most influential factor for your current school site?
   - motivation

3. Why was that the most influential factor? (What evidence is there to suggest that the named factor was the greatest contributor to the increase in test scores?)
   This is the one thing that changed during the requested time period.

1. Was any part of the school community improved upon during this time of growth (2004-2008)? Please explain.
   a positive atmosphere, led by the admin
2. Were any parts of the school facilities and/or grounds enhanced during this time of growth (2004-2008)? Please explain.
A student created image was painted on the front of the gym.

3. If you would like to make any additional comments about the influence of school environment in relation to your school's API results, please do so here.
No Response