EXECUTIVE SUMMARY
William G. Paden School
Alameda Unified School District
Innovative Programs/Magnet Schools Request for Proposals
Phase II: Program Implementation

The Master Plan (adopted by the Board of Education on February 23, 2010) provided for the establishment of "attractive school options to provide desirable choices and deepen student, family and community engagement in the youth's lives and education." To meet this goal, any group of teachers and administrators may form a program leadership team in an effort to create an innovative or magnet program.

William G. Paden School Innovative Plan
Learn and Plan by the Bay

Instructional Theory of Action

If we:

- Provide standards aligned science instruction and curricular materials that actively engage students in higher order problem solving and critical thinking building environmental literacy
- Engage parents/guardians as knowledgeable partners and effective advocates for student success
- Eliminate systemic barriers which have historically and actively resulted in inequitable outcomes for students based on race/ethnicity or socioeconomic status

Through the following:

- Implementing the Lawrence Hall of Science, MARE Curriculum
- Implementing service projects related to San Francisco Bay
- Providing students academic experiences outside the classroom that build understanding of environmental literacy
- Providing students opportunities for imaginative play, problem solving, experimentation, and discovery
- Providing staff the appropriate training and ongoing support to implement effective science instruction using Kids for the Bay and MARE curriculum

We will achieve the following:

- Students will be prepared to be responsible citizens
- Student outcomes will not be predictable based on race/ethnicity or socioeconomic status
- Students will be engaged in hands-on science labs more regularly with more out-of-classroom experiences to solidify classroom knowledge.
- Students will be able to verbalize the impact they have on their neighborhood.
- Students will be better able to problem solve on the yard and in the classroom
- Literacy rates, as measured with appropriate assessments, will improve.
- Science competencies, as measured with appropriate assessments, will improve.
- Student daily attendance will improve.
- Attendance at parent-teacher meetings will increase. Besides the already established PTA, Back To School Night, Open House, SSC, ELAC, and Multicultural Potluck Night, other possible parent-teacher meetings may be added to help build home-school academic connections.

Process Background

At their regularly scheduled board meeting in May 2016, the AUSD School Board made a determination that Paden School's Phase I: Initial Planning and Program Development could move forward. This document is a description of this Planning and Development phase and our request to move to Phase II: Program Implementation in the 2017-2018 school year.

We, the faculty, staff, families and students at Paden, see the Innovative Program as an important opportunity to come together to implement a specialized program to benefit children and families at our site.

- Currently, AUSD has funded 7 Innovative/Magnet Schools: Earhart, Bay Farm, Haight, Franklin Maya Lin, Wood Middle and Encinal 6-12. .
- This year there are 2 proposals for Innovative Plans, one from Ruby Bridges and one from Paden.

Leadership Team/ Contacts

Team Contact- Erin Head, Teacher Librarian
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Innovative School Program Subcommittee Team
Erin Head, Media Center Teacher and Team Lead
Katherine Barr, Principal
Kitrena Swanson, 1st grade teacher
Serena Kielty, 3rd grade teacher

Second graders explore and learn about sandy beaches at the Alameda shoreline.

Fifth graders have been going to Science camp in the Marin Headlands for the last three years.

Students play and build with recycled materials at recess and learn through making.

William G Paden School Innovative Plan

Who We Are

Paden is a small, Title 1, neighborhood school serving an economically and culturally diverse population. Nearly half of our approximately 320 grade PreK-5 students receive free or reduced lunch. About one third of Paden students are Caucasian, while African American, Hispanic, Asian, and Filipino students make up the remaining two thirds in fairly even numbers. Approximately one third of students are English Language Learners. Paden has two preschool classes of special needs students on campus, as well as K-2 and 3-5 learning centers for students with special needs, including mild to moderate autism. Our school community is dedicated to one goal: meeting the needs of the whole child. We have worked diligently to create a school where all students are welcomed and moving towards meeting Common Core Standards.

Paden students scored at the district average in both English language arts and math last year. Considering that we were a Program Improvement school three years ago this is great progress!
Staff use Reader's and Writer's Workshop as a core curriculum meeting students where they are and challenging them to grow as readers and writers. Literacy interventions are in place for students who are behind with each grade level having time during the day for students to receive support. We have implemented Systematic English Language Development so all English Learners receive designated instruction with small groups of students at their instructional level. Now we can maintain this work and incorporate more science. The Innovative Plan described below moves us further towards meeting our goal by enhancing our work in science and play.

Why the Innovative Plan is Important

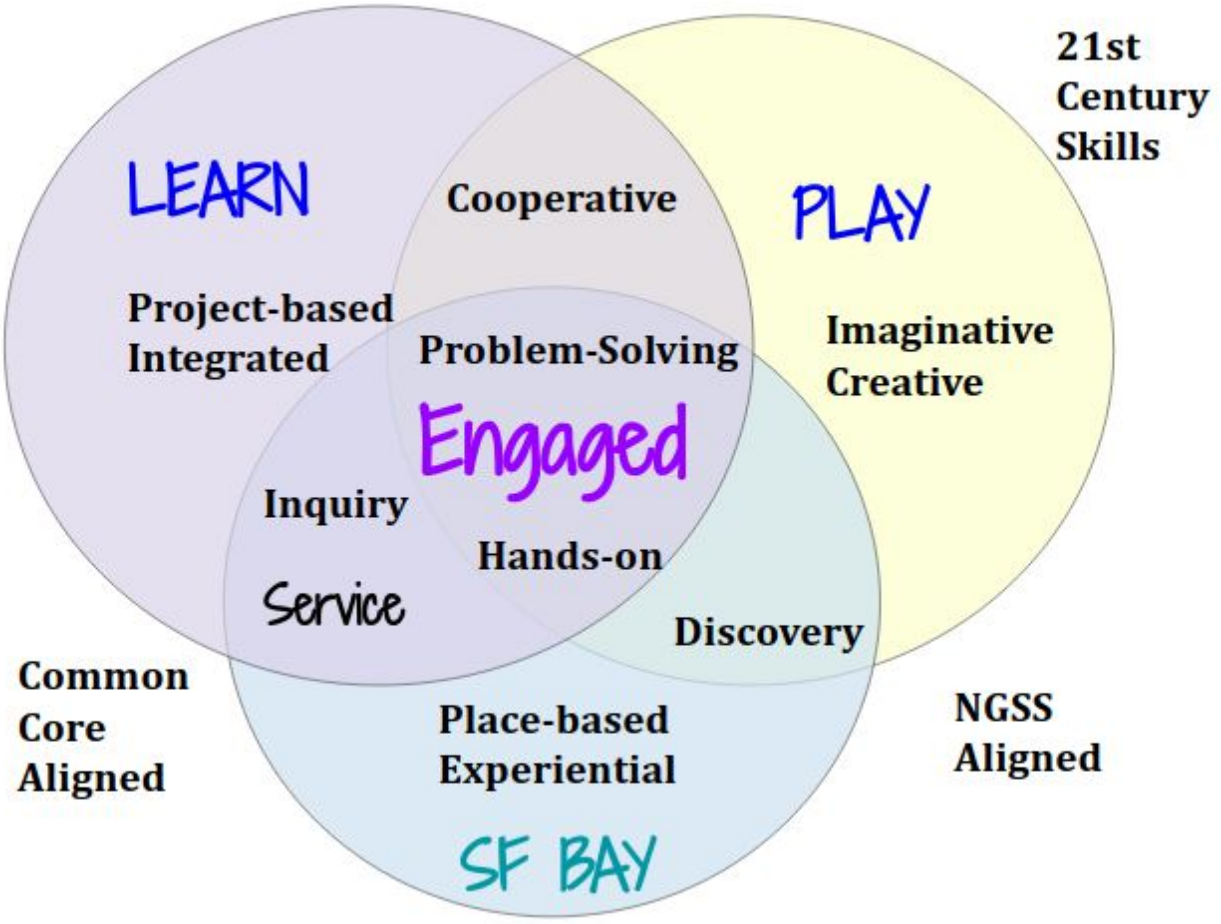
The innovative plan of "Learn and Play by the Bay" is important as it is a unifying expression of the values of our staff and community. It builds on the successes we have had academically in math and English language arts, scientifically building environmental literacy, and socially developing caring citizens.

As a Go Green school, Paden students already actively participate in recycling and composting. Third grade students help with composting every day at lunch time and collect recyclables from the classrooms on a weekly basis. Fourth and fifth grade parents also collect recycling from families on a weekly basis to fundraise for science camp. Fifth grade Paden students spend three days and two nights at an outdoor education program and learn how to become better stewards of our environment. Each Earth Day, Paden students celebrate by building recycled robots from waste materials. Third grade staff have worked with Kids for the Bay for many years. The Innovative Plan will support each grade level to plan lessons with Kids for the Bay staff as well as support for a school wide action learning project to build environmental literacy. Furthermore the Innovative Plan provides for additional, more extensive field trips and off campus experiences within the Alameda community.
As important as it is to have an academically rigorous program, Paden staff and community are committed to ensuring our students have opportunities to participate in imaginative play, problem solving, experimentation, and discovery. The theory of loose parts states, "In any environment, both the degree of

inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it" (Nicholson, 1970).

Like most school playgrounds, Paden's playground is very static with an expansive blacktop, a small garden, and a fixed playground structure without moving parts like swings. Students have a selection of sports equipment, but each piece typically has a specific purpose and rules (tetherball, wall ball, foursquare, etc). The desire for loose parts can be seen in the ways that students have found alternative ways to play with the hula hoops and balance boards by turning them into obstacle courses, sleds, and more. Paden's Play Sheds are unique in our area. The Innovative Plan provides resources to support more frequent access to these materials, more varied play equipment on the play yard, as well as maker's materials for teachers to use within their classrooms.

Vision
Paden students engage in work and play to positively impact their well-being and that of their environment.



Learn and Play by the Bay at Paden School
There are two areas of focus which Paden is pursuing to achieve this vision: place-based science to develop environmental literacy and play.

Place-Based Science and Environmental Literacy
Paden school is located right on the San Francisco Bay and students have the opportunity to observe wildlife and the tides on a daily basis. The Next Generation Science Standards call for students to “use their understanding to investigate the natural world through the practices of science inquiry, or solve meaningful problems through the practices of engineering design.” Our work directly relates to this standard. We’ve adopted the MARE curriculum from Lawrence Hall of Science which provides resources for engaging the whole school simultaneously in the study of different aquatic habitats. As students progress through the years, they build upon concepts and processes learned in previous years. We want to build on this knowledge and connection to the world around them to build students’ environmental literacy.

The term “environmental literacy” has become increasingly prevalent, but how exactly is environmental literacy defined? The current most broadly accepted definition encompasses experiences, understanding and action. It states that knowledge and understanding are important components of being an environmentally literate citizen, yet the key is the connection between what people *know* and what people *do*. According to the North American Association for Environmental Education’s (NAAEE) *Developing a Framework for the Assessment of Environmental Literacy:*

> An environmentally literate person, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment; and participates in civic life. Those who are environmentally literate possess, to varying degrees:
>
> - Knowledge and understanding of a wide range of environmental concepts, problems, and issues;
> - A set of cognitive and affective dispositions;
> - A set of cognitive skills and abilities;
> - The appropriate behavioral strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts.

Students will demonstrate and continue to grow their environmental literacy through service learning. Third graders, our models for this idea, have worked with Kids for the Bay each year learning about watersheds and the impact humans have on the San Francisco Bay. After instruction, students decide on a service learning project they can complete within our neighborhood, anything from picking up plastic trash to focusing on cigarette butts and their impact on the bay. With the Innovative Plan resources every grade level will work with Kids for the Bay to plan additional instruction related specifically to the aquatic habitat they are studying. Kids for the Bay will also support a whole school service learning project, demonstrating students can apply their knowledge and understanding to make sound decisions within their environment.

We realize that in order for “Learn and Play by the Bay” to be sustainable, we need to do our part in fundraising and applying for grants. The third grade team applied for and was awarded a NOAA Ocean Guardian grant. The grant pays for additional materials to help expand students’ service learning and reduce waste on campus. We plan on applying for the grant each year over the next four years as we grow the program. The third grade teachers also received a $1000 Ventures Foundation grant that allowed them to pay for transportation to the Bay Model in Sausalito, a day-long field trip directly related to their study of the SF Bay watershed. The fourth grade teacher received the same $1000 grant to help towards the cost of the fourth grade trip on the Marine Science Institute research vessel on the bay.

Play

Along with the emphasis on science, the Innovative Plan resources will allow us to expand the work we've done to increase play opportunities during school hours.The studies conducted of the 'Play Pods' and other play initiatives in England have confirmed that providing this basic right, the opportunity for unstructured play, at school has many positive outcomes. Students interact more with each other, learn to cooperate and manage conflict better with less adult intervention, become more physically engaged and active in their environment, and return to class more focused and ready to learn. We've already begun to see some of these outcomes this year after having expanded morning recess for TK-3rd graders to thirty minutes, drastically simplifying the rules throughout the play yard, and opening the Play Sheds twice a week.

The Play Sheds provide Paden another way to fulfill its mission of providing "students with the opportunities to learn in ways that support their individual learning styles, helping them realize their strengths, work with their challenges, and fulfill their potential." It also brings the school community even closer together and increases school pride, because the systems changes related to time allotted to recess and the rules used throughout the play yard, along with this type of play could serve as a model for other schools in the district and Bay Area who do not currently provide play opportunities such as this for their students. Alameda Arts, our after care provider, and Paden staff would work together to share our experiences developing our philosophy and implementation so that the program could be replicated and more students could benefit.

In addition to expanding play opportunities during recess, the Innovative Plan provides for Maker's materials. The Paden Media Center teacher created a small makerspace within the library media center this year. It provided students introductory opportunities for making, tinkering, and engineering with recycled materials. If space can be allotted next year, we will supply it with more extensive materials and have a dedicated space for hands-on science and maker projects. If our school grows so that we do not have space, we will create carts that teachers can take to their classrooms, complete with enough materials for the class to use. The indoor makerspace addresses the need for students to be able to participate in meaningful hands-on projects to construct their understanding of the world around them.

We need a facilitator to help develop and establish the makers programs. A facilitator would be instrumental in helping to acquire, organize, and replenish recycled materials and in establishing procedures and guidelines. Most importantly, a facilitator would be able to offer organized lunch hour and after school activities to give more students the opportunity to take advantage of both the outdoor recycled play and the indoor makerspace. Once these programs have been successfully established with the help of a facilitator, it will be easier to solicit volunteers and/or raise funds to continue funding the position in future years.

The Play Sheds and Makerspace would expand our lessons on how to reduce waste by teaching creative reuse. By providing students opportunities to play and create with scrap materials, they learn about another way to reduce waste while practicing creativity, innovation, and hands-on learning. As in the science work we are doing, we realize we need to write grants, fundraise and use volunteers for this work

to be sustainable. We used a Lowe's grant to purchase the storage sheds and Dad's Club assembled them. PTA contributed funding for makerspace tools and materials in the Media Center.

Five Year Plan

PADEN's Learn and Play by the Bay Innovative Plan and Budget

	YEAR				
Staffing	**1**	**2**	**3**	**4**	**5**
Innovative Program Coordinator (.3) and Playpod/Makerspace Paraprofessional (4hr/day 9:15-1:15, 3x/ wk)	$38,370.00	$38,370.00	$38,370.00	$38,370.00	$38,370.00
Professional Development					
Lawrence Hall of Science- MARE Curriculum, Kids for the Bay, CA Science Educ Conference	$8,400.00	$6,400.00	$5,400.00	$1,400.00	$1,400.00
Field Trips					
Kinder-4th Grade Field Trips	$8,000.00	$8,000.00	$8,000.00	$7,500.00	$7,500.00
Grade 5: Science Camp (Parent Fundraising- $12,500)	$0.00	$0.00	$0.00	$0.00	$0.00
Assemblies, Guest Teachers and Service Learning					
Kids for the Bay	$4,700.00	$4,700.00	$4,700.00	$2,100.00	$2,100.00
NOAA Ocean Guardian Grant - Marine Debris project	-$4,000.00	-$4,000.00	-$2,500.00	-$2,500.00	
Materials					
	$14,286.00	$8,224.00	$5,494.00	$2,974.00	$2,974.00
Technology					
Digital Cameras, Tripods, Maker's Space Projector, iPad Apps	$2,734.00	$330.00	$80.00	$80.00	$80.00
Facilities (MOF)					
Sink, Electrical Outlets for Maker Space					
TOTAL	**$74,050.05**	**$65,026.45**	**$59,643.75**	**$48,423.75**	**$50,923.75**

Student Outcomes

- Students will be prepared to be responsible citizens
- Student outcomes will not be predictable based on race/ethnicity or socioeconomic status
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Program Evaluation

We will look at both qualitative and quantitative measures to evaluate the effectiveness of the program.

Qualitative Review

- Surveys of all stakeholder groups (students, parents, teachers, staff) to measure engagement and satisfaction with the entire program
- Analysis of student work created in the makerspace
- Observations of student outdoor play with recycled materials

Quantitative Review

- Evaluation of sign in logs to monitor use of the makerspace/ makers carts and attendance at parent events
- Analysis of the quantity and type of recyclables and repurposed material collected and used for play and in makerspace activities
- Evaluation of office health clerk logs to measure impact of outdoor recycled play opportunities on student behavior
- Analysis of student assessment data, including looking at subgroups and number of years students attend Paden
- Comparison of daily attendance rates across years
- Analysis of sign in sheets from all events

We look forward to documenting and sharing our experiences so that the program can be replicated and more students can benefit.

Sustainability

One of the strengths of our plan is that it will build Paden's internal capacity to continue the work. We know the curriculum and basic learning from the outset. Staff will be trained in the first three years in order to be able to provide training from within in the years following. Strong grade level team collaboration support initial implementation for new staff and the coordinator and facilitator provide additional support. As shown in the 5 Year Plan, we will continue to write grants, fundraise and use volunteers when possible. Our PTA supports the Innovative Plan and looks forward to providing additional support in the future.