



Kids Healthy Outdoors Challenge (KHOC)

2013–2014 School Year
Report on Educator Survey



Kids Healthy Outdoor Challenge is funded by the Regional Park Foundation, Kaiser Permanente, and the Contra Costa County Fish and Wildlife Committee.



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I. Executive Summary

Purpose of the Pilot Project: In school year 2013–2014, EBRPD conducted the second pilot year of its *Kids Healthy Outdoor Challenge (KHOC)*, funded with support from Kaiser Permanente and the Contra Costa County Fish and Wildlife Committee. KHOC was designed in 2012 with a goal of promoting outdoor education while also supporting third grade curriculum content standards, including new Common Core Standards.¹ It was designed as a tool to support, but not supplant, the teaching of required content in a new way—outdoors, with teachers leading activities on their own.

The EBRPD Master Plan 2013 highlights the importance of connecting youth to nature and building future environmental stewards; today’s students are tomorrow’s civic leaders. Also, there is significant data that supports the value parks and nature have in improving health. Spending time outdoors contributes positively to student achievement, learning, and development. The master plan priorities include expanding focused efforts to attract young people in parks. KHOC is an exciting program that empowers teachers and students to take their classroom outside.

KHOC is comprised of ten lessons. About half are designed to support classroom learning at school and in parks while the other half are ideal for students and families, long after the school year is over. KHOC lessons include *Connecting with the Past* (e.g., exploring Ohlone Native American culture), *Planting a Seed*, *Exploring Nature*, and *Following a Trail*.

During the school year, each teacher was asked to complete at least three of the ten outdoor education-based lessons in the KHOC booklet with their class, and to go on one class trip to an EBRPD park. Anticipated **outcomes** for the teachers piloting KHOC included:

- Increased comfort and skills teaching outdoors
- Diverse teachers supported in meeting third grade curriculum content standards
- Increased use of EBRPD resources to support learning
- Increasing level of physical activity outdoors, promoting health and well-being, and life-long parks use, both for teachers and their diverse students

My students were just as excited, if not more, about our field trip to the park as they were for other field trips (Exploratorium, Science Center). Doing a short trail walk at Redwood was a really exciting experience for them, so I felt more confident that students would be engaged in outdoor activities such as nature walks and observations.

—A KHOC teacher

Thirty-two (32) classrooms from 18 public schools in Alameda and Contra Costa Counties were initially selected to participate. They represented six school districts and one county Office of Education/charter school. At the end of the school year, all but three classrooms from one school district had participated in KHOC—29 classrooms representing 17 schools and six local educational agencies.

¹ Most districts are in the early stages of implementation, but survey data suggest that many teachers will deliver the new standards for the first time in 2014–15, http://www.ppic.org/main/publication_quick.asp?i=1093.

To determine whether project outcomes were met and to gain valuable program feedback, all 32 original teachers were asked to complete an *Educator Survey* in June 2014. **Twenty (20)** of the original 32 participating teachers (63%) completed the survey.

EBRPD also asked teachers to complete a year-end Teacher Activity Log, summarizing activities completed during the year and numbers of students participating. This year, teachers needed to submit this log before requesting their school field trip. This resulted in 29 of 32 (91%) teachers submitting the completed log, and 27 taking the park trip, compared to just 42% in Year 1. (This change also greatly minimized the rate of teacher “drop-out” from the program.)

Participating students were highly diverse. Students came from participating schools which were approximately: 47% Latino/a, 21% African American, 15% Asian, 11% Caucasian, 3% Pacific Islander and 3% Other/Multi-racial. Less than 1% were Native American (Data from Ed-Data. k12.ca.us, 2012–2013). Participating schools had rates of Free and Reduced Price Lunch (indicating poverty) ranging from 10% to 98%, with an average rate of 74% qualifying for Free and Reduced Price Lunch (Ed-Data, 2011–2012). Average class size was 24 children.

This year, KHOC also had its first class of disabled students, a group of nine deaf/hearing impaired students from Franklin Elementary School in Oakland.

All in all, approximately **700 students** completed the KHOC booklet and about **650** of these took the park trip.

Summary of Survey Results: Of the 20 survey respondents, **85%** (N=17)² had completed KHOC by completing at least three lessons and taking the class field trip.³



One of the major goals of KHOC was to increase educator comfort and skills teaching outdoors. The project appears to have achieved this goal: **67%** (N=12) Agreed or Strongly Agreed that KHOC increased their comfort with leading classroom activities outdoors; **61%** (N=11) Agreed that participating in the project increased their skills teaching outdoors.

It was also critically important that teachers not feel like KHOC was taking time away from meeting mandated state curriculum standards; **50%** (N=9) Agreed or Strongly Agreed that KHOC helped them to meet curriculum standards, while 33% were Neutral on this question.

Teachers who felt supported by the curriculum cited Science/Life Science (89%), PE, Reading and History/Social Science (all 67%) as the standards most aligned with KHOC. 1`

² The survey rate of 85% program *and* park trip completion is identical in the overall KHOC cohort.

³ Some teachers skipped some survey items resulting in fewer than 20 responses for certain questions.

During the school year, EBRPD sought to increase student (and educator) enthusiasm for activity and learning outdoors, particularly in natural park settings.

Survey results show that this outcome was successfully met:

- **94%** (N=17) of teachers surveyed agreed that participating in *KHOC* made their class want to spend more time being active outdoors.
- **78%** (N=14) agreed they spent more time teaching outdoors this school year than they did the last school year.

Moreover, **67%** (N=12) of teachers said they learned about EBRPD resources to support learning, including transportation resources, maps and information about programs on the EBRPD website, and specific program offering at parks.

Most importantly this year, **89%** (N=16) of teacher respondents said they intend to continue teaching lessons that **get kids active outdoors** in the future.

Finally, information was collected from educators on how KHOC could be improved in future years. Section IV of this report details their suggestions, including clearer directions about scheduling park trips, more park naturalist involvement and improvements in the teacher orientation held in the fall.

Three things I learned about parks and nature this year are: Nature is beautiful. Nature helps us learn about new things. Going outside is doing exercise!

—A KHOC student from
Aspire ERES Academy, Oakland

Comparison of 2012–3 and 2013–2014 Cohorts: Although these results are very promising, survey responses are, on the whole, different than they were in the 2012–2013 survey (Pilot Year 1). We explore these differences in Section V, including potential explanations for the differences.

We also propose a third pilot year, in school year 2014–2015. Since results from Years 1 and 2 were different, a third pilot year will EBRPD to learn more conclusively how the program can be revised and improved for the future.

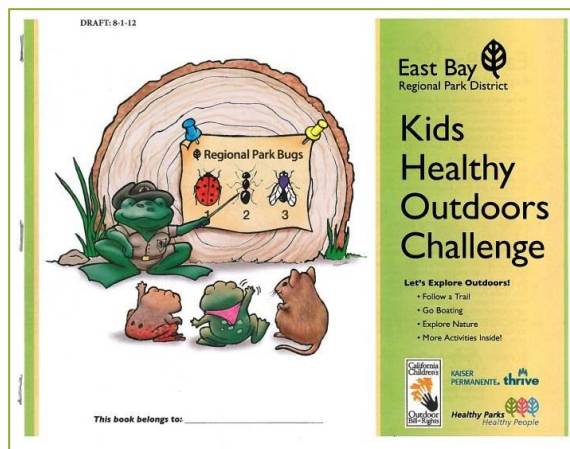
EBRPD continues to feel very encouraged by these KHOC findings, and is committed to continuing to promote outdoor education to improve health and well-being in our East Bay schools.

Note: A short student survey was also requested for the third graders who participated in KHOC, and we received surveys from five classrooms. Results are included as Exhibit A.

II. The Teachers & How They Conducted KHOC

EBRPD selected thirty-two third grade teachers to pilot the *Kids Healthy Outdoor Challenge (KHOC)* in school year 2013–2014. An online survey was distributed in June 2014, completed by 20 of the participating teachers.⁴

The teachers surveyed were fairly experienced educators, having taught for an average of 17 years. The range of experience was from one to 38 years (one respondent indicated she was retiring). As noted from the Teacher Activity Logs, the average class size was **24 students**.



Eighty five percent (**85%**) of survey respondents indicated that they were able to complete the project—that is, complete at least three of ten (10) lessons *and* take a trip to an EBRPD park.

Fourteen (14) of 18 respondents even indicated they had *exceeded* requirements, completing more than three of the lessons.

Of the 15% of respondents who indicated they had not “completed the project,” most had completed three lessons but not scheduled the park trip. Some reasons for not completing the project included:

- *School scheduling limits due to previously planned activities, state testing, and determining where to visit. Comfort and liability for a non-docent(s) led trip.*
- *A longer SBAC testing window and need to prepare students for taking the online tests. I also felt uncomfortable taking my students to parks without docents due to liability and safety concerns.*

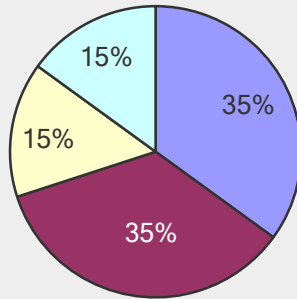
This suggested that although teachers might have years of teaching experience (as these two respondents did) they were also somewhat intimidated by the prospect of teaching outdoors on their own. There may also have been school limitation or liability issues that prevented them from taking a trip without a naturalist.

At the start of the year, EBRPD expected that teachers would have a range of skills and comfort level *teaching their classes outdoors*, and this was largely true – most (**70%** or 14) teachers had at least some level of comfort teaching classes outdoors. However, six teachers were either neutral or uncomfortable:

⁴ Some teachers skipped some survey items resulting in fewer than 20 responses for certain questions.

Before KHOC, what was your comfort level conducting lessons outdoors?

■ Very Comfortable ■ Somewhat Comfortable
□ Neutral □ Somewhat Uncomfortable



Last year, we learned that most teachers did *not* complete lessons in their entirety (as presented in the curriculum and accompanying Teacher Guide) due to limited class time, different teaching styles, and the degree to which they went “in-depth.” This year, EBRPD sought to determine the level to which teachers “tailored” or individualized the curriculum for their classrooms.

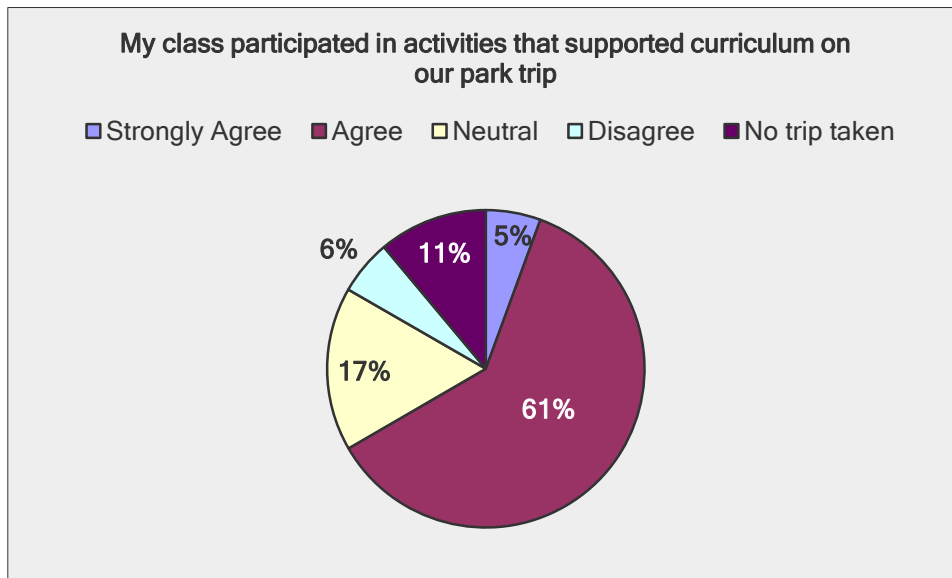
Only 10% of survey respondents (N=2) had “delivered all lessons exactly as outlined in the curriculum.” The rest had tailored all (35%) or some (55%) of the lessons.

Some reasons for tailoring the curriculum included:

- *I did some lessons in smaller pieces, due to time constraints. Certain activities, like making the kite, took up a whole lesson block.*
- *One example of a way a lesson was tailored was making the scavenger hunt more appropriate to our school environment.*
- *Lessons were presented using a document camera so the entire class could see it on a big screen.*
- *I edited and adapted parts that students didn't have the experience to relate to.*
- *From the teacher of the deaf classroom: Thank you for providing such a great program that is adaptable for special education students too. Due to their reading and language delay, I just had to modify the language. The content was relevant and useful for my students.*

As a result, EBRPD concludes that in future orientations, we want to encourage teachers to use the curriculum as a guide and tool for teaching outdoors, but to *continue to adapt it to make it useful* in their school and classroom protocols.

Finally, **67%** (N=12) of respondents to the question “My class participated in activities that supported curriculum standards on our park trip,” Agreed or Strongly Agreed that this was so. This is precisely the kind of alignment EBRPD hoped would support teachers, without taking time away from meeting curriculum standards. (Note: 11% or N=2 did not taken the trip.)



Findings from the Teacher Activity Logs: The Teacher Activity Logs submitted before teachers requested a park trip provided supplemental information about the process of teaching the KHOC curriculum. The most popular lessons taught were *Connect with the Past*, which focuses on Ohlone history (N=17 times taught), *Play in a Safe Place* (N=15 times taught), *Plant a Seed* (N=14 times taught), and *Explore Nature* (N=12 times taught).

Teachers also quite often taught the lessons associated with activities that are hard to conduct in the classroom (e.g., *Camp Under the Stars*: N=10 times taught, *Ride a Bike*: N=6, and *Learn to Swim*: N=5), suggesting teachers can create a spark for life-long learning and appreciation for the outdoors when students are not in school.

For teachers who took their classes on park trips, the **most popular EBRPD trip destinations** were Coyote Hills (six trips taken), Black Diamond Mines (four trips), Lake Chabot (three trips), and Tilden Nature Area (three trips). Trips were also taken throughout the district to locations like Big Break, Briones, Ardenwood Historic Farm, Hayward Shoreline, Redwood and Roberts Parks. About 650 students went on park trips during school year 2013–2014.

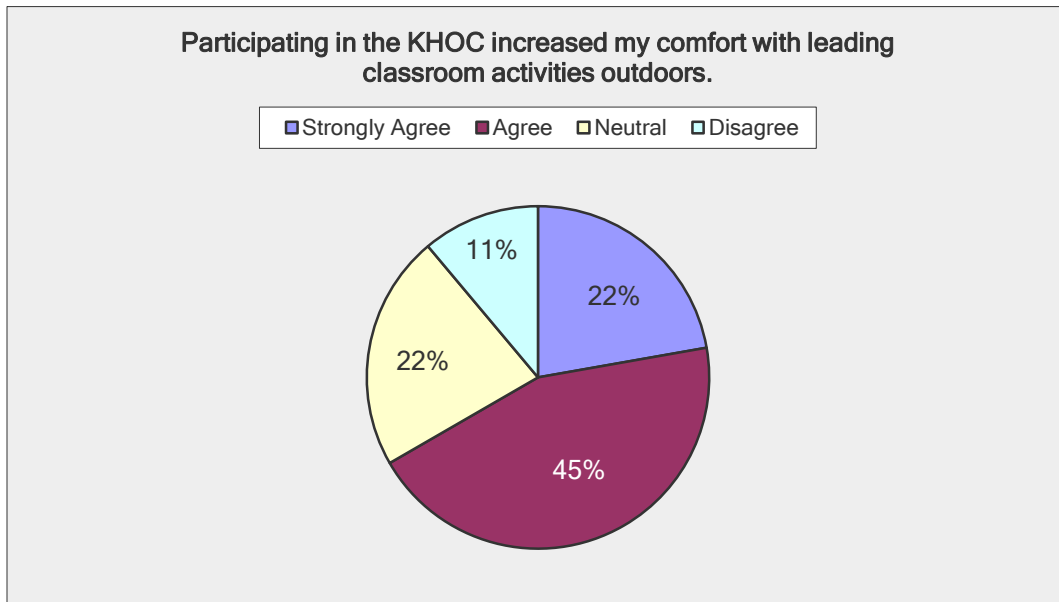
Note on program non-completion: In the first pilot year 2012-13, a third of teachers dropped out of the program before completing any activities, and none of these teachers took the year-end survey. We noted last year that survey results could be skewed positively—we didn’t have any feedback from those relatively few who had trouble completing the program.

This year, teachers had to complete three lessons and their activity log before scheduling a trip, and this minimized drop out, overall. Thus, we had program “noncompleters” taking the survey, and providing valuable input about some of the challenges they had.

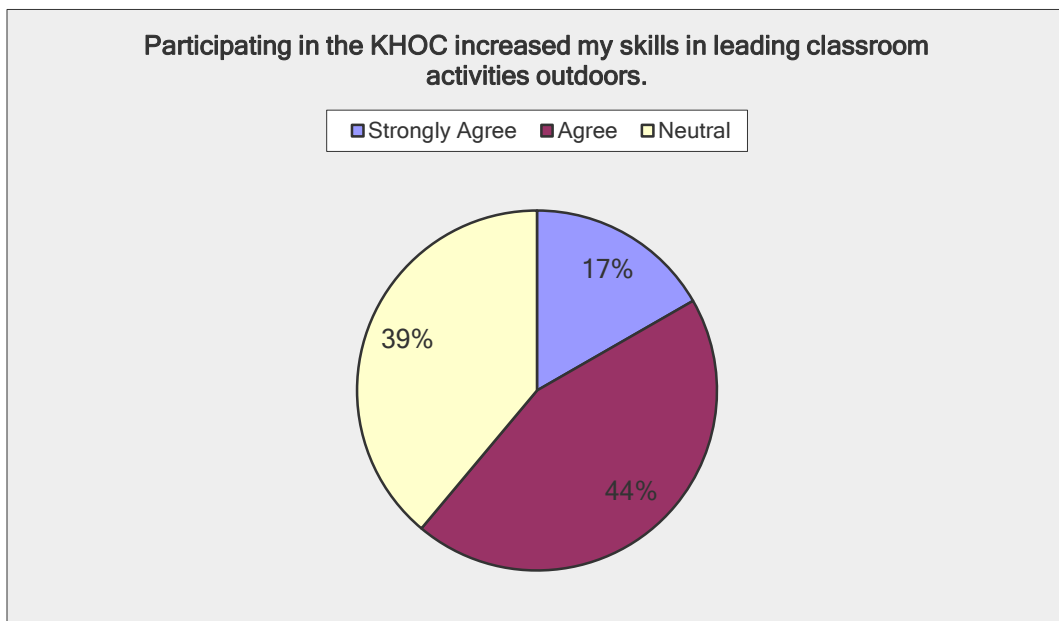
III. Outcomes

I. Increasing Comfort and Skills Teaching Outdoors:

One of the major goals of KHOC was to increase educator comfort and skills teaching outdoors; **67%** (N=12) Agreed or Strongly Agreed that KHOC increased their *comfort* with leading classroom activities outdoors:



Moreover, **61%** (N=11) agreed that participating in the project increased their *skills* teaching outdoors:



Tellingly, four of the six 6 (67%) teachers this year who indicated they were either Neutral or Uncomfortable about teaching outdoors at the start of the year (see page 5) agreed that “*Participating in KHOC increased my comfort with leading classroom activities outdoors,*” and 50% Agreed that it had “*Increased their skills teaching outside.*”

Moreover, five of the same six (83%) Agreed or Strongly Agreed that they: “*spent more time teaching outdoors this school year than I did last school year*” and that they “*intend to continue teaching lessons that get kids active outdoors in the future.*”

Teacher comments that underscored growth in **comfort** included:

- *Seeing the students' engagement during the KHOC helped me continue to see the importance of outdoor education, especially when they support state standards.*
- *It mainly encouraged me to complete more outdoor conversations and activities. My students would not have received such a rich environmental and outdoor experience without the KHOC.*
- *Seeing the simplicity of the recommended outdoor activities (e.g., the scavenger hunt we did on the evening of the training) affirmed for me that the activities can still be simple while being valuable.*
- *My students were just as excited, if not more, about our field trip to the park as they were for other field trips (Exploratorium, Science Center). Doing a short trail walk at Redwood was a really exciting experience for them, so I felt more confident that students would be engaged in outdoor activities such as nature walks and observations.*
- *Having the KHOC booklet gave me ideas on how to incorporate academics into a park excursion. The activities were great to support language, math, social studies, and science. Of course, let us not forget PE.*
- *My comfort increased by holding student attention outside, and by feeling more comfortable leading hikes on field trips.*

I gained the confidence and ability (through the free transportation) to get out and visit the East Bay Regional Parks with my students and lead activities without a naturalist.

—A KHOC teacher

Teacher comments underscoring growth in **skill set** included:

- *It increased my ability to organize and plan for large groups of students.*
- *It definitely increased my comfort with lots of trail lessons. I also was willing and able to get my students to areas beyond Oakland.*
- *Gave me ideas for how to focus their attention while outdoors.*
- *Keeping students focused and engaged while being outdoors. Helping them not be distracted, but to learn about the natural world.*
- *I think once I felt more comfortable I was able to “go with the flow” and let things happen naturally instead of having a set plan.*
- *Managing students in an outside environment is different; I had to learn to anticipate more, what their needs would be.*

Others were *already* experienced outdoors educators, and had participated in EBRPD outdoors trips in the past. As a result, some of these did not feel their skills or comfort had increased as a direct result of participating in KHOC. One teacher said, “*I am pretty competent in this area. I have been a girl scout camp co-leader for years.*”

2. Helping Teachers Meet Curriculum Standards: As part of introducing outdoors education into third grade classrooms, it was critically important that teachers not feel that KHOC took precious classroom time away from meeting state curriculum standards. EBRPD designed KHOC to support and not detract from curriculum standards.

Having the KHOC booklet gave me ideas on how to incorporate academics into a park excursion. The activities were great to support language, math, social studies, and science. Of course, let us not forget PE.

—A KHOC teacher

Overall, **50%** (N=9) of teachers Agreed or Strongly Agreed that the lessons helped them meet curriculum standards; 33% were Neutral (N=6), and 17% Disagreed (N=3).

While several teachers expressed appreciation for the KHOC curriculum (e.g., “*The KHOC curriculum went along nicely with curricula I was using.*”), there were some individual responses from teachers who had criticisms (particularly those who had 15+ years of teaching experience):

- *The barrier is the time pressures that are present with the current transition [to new Common Core standards]. I found the timing of the KHOC a bit awkward. Our particular science lessons on plants and animal adaptations was in the fall, and the sun, moon, and stars was after March. It would have been helpful if the unit started in early October when weather is great and we are still in the first science unit.*
- *Our school is focused on ELA and math content standards. We integrate social studies and science mostly through reading, so some recommended texts that support the KHOC lessons would have helped me better use the lessons to meet curriculum standards.*
- *None of the lessons contained critical curriculum standards that I wouldn't have been able to meet in a different way.*
- *The new Common Core standards are more rigorous.*
- *Personally, I didn't think the curriculum was very strong in the KHOC packet. I augmented with some of my own materials.*

EBRPD designed KHOC as a tool to help teachers meet curriculum standards. The intent was to illustrate how curriculum standards could met with techniques and lessons designed to be delivered outdoors, bringing children into nature and the parks. In no way was KHOC intended to be the *only* curriculum used in a classroom, and we have learned that this is an important lesson to convey to future teacher cohorts. As noted earlier, it will also be important to stress that teachers are encouraged to adapt KHOC with their own ideas to support their own unique class needs and protocols.

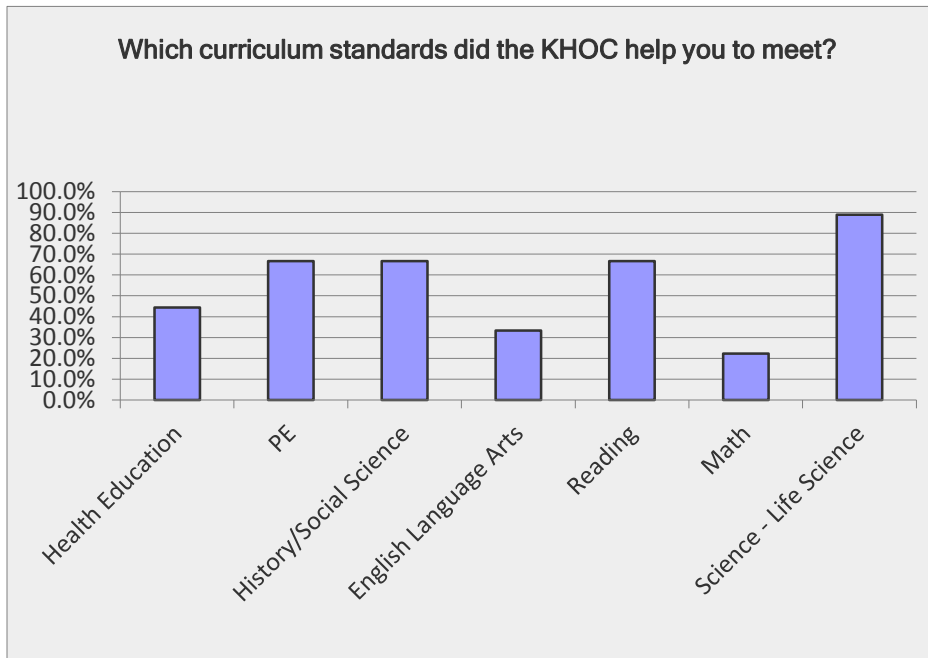
There were also teachers who felt the curriculum was not as strong as what they had developed on their own, and who felt the soon-to-be-fully-implemented Common Core standards were more rigorous. Most districts are in the early stages of implementing Common Core, and many teachers will deliver the new standards for the first time in school year 2014–2015. EBRPD reviewed and tried to

incorporate Common Core standards when KHOC was designed in 2012, however, it was not possible to predict the many shifts and challenges that would be required several years out.

In KHOC pilot Year 3 (school year 2014-2015), after most teachers start fully delivering Common Core, we plan to survey our cohort about the alignment of KHOC with new standards. This will allow us to revise the curriculum for Year 4, if needed.

Finally, we acknowledge and celebrate the fact that teachers are creative and resourceful—they are the experts in teaching children. Many have lesson plans they have used effectively for years, and some of these lessons may be useful to other teachers seeking to improve their outdoor education skills. In future years, we may invite our teacher cohorts to share additional activities, outside reading resources, etc. that could be posted on the KHOC website for all to use.

Teachers who **did feel that KHOC supported the state curriculum** cited Science/Life Science (89%), PE, Reading and History/Social Science (all 67%) as the curriculum standards most supported by KHOC.

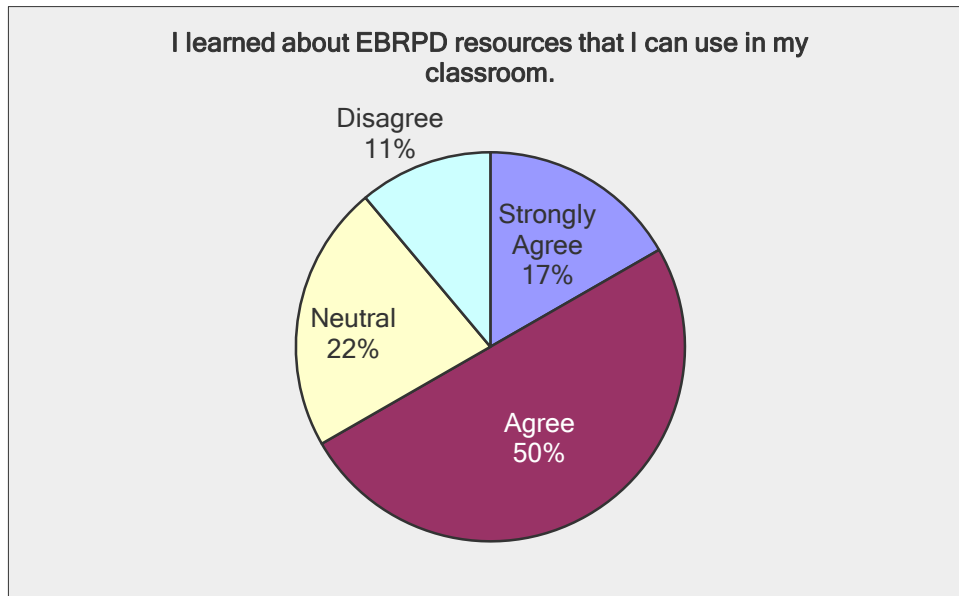


Moreover, the majority of teachers (**78%** or N=14) felt that KHOC helped students *explore and master topics they were required to learn*. This is important because, as noted, KHOC is designed to be a supportive curriculum *tool*, not the curriculum itself.

As illustrated in the chart below, the standards where student mastery were most likely to be increased by participation in KHOC included Science/Life Science (79%), History/Social sciences (50%), Health Education (43%) and PE (29%).



3. Helping teachers learn about EBRPD resources: EBRPD hoped that teachers would learn about park district resources (i.e., free or low-cost recreational opportunities, educational tools, mobile exhibits, health resources and programs) that they could continue to use in their classrooms, and per the following chart, two thirds (**67%** or N=12) felt that they did.



Resources mentioned included the following:

- *I didn't know about the Botanical Garden in Tilden before and found it to be a fantastic place to take my students. I also learned more about the cost of the East Bay Parks Express.*
- *Children's Outdoor Bill of Rights, Activity Guide, and nearby places to visit without cost.*
- *We had a naturalist come to our school which I didn't know we could do.*

- *The booklet provided me with ideas that I would have never thought to do (no time to create). I have always loved and utilized EBRPD and love the wonderful parks they have. It just enhanced my support I have of EBRPD.*
- *I learned about parks I had not yet visited such as Black Diamond Mines and Ardenwood Farms.*

4. Engaging Students and Educators in Outdoors Education: During the pilot year, EBRPD sought to increase student (and educator) enthusiasm and engagement in learning outdoors, particularly in natural park settings.

Survey results show that these outcomes were successfully met:

- **94%** (N=17) of teachers responding agreed that participating in KHOC *made their class want to spend more time being active outdoors.*
- **78%** (N=14) agreed that lessons were *engaging and fun* for students.
- **95%** and **90%** respectively felt that the lessons were both *age* (N=17) and *culturally* (N=16) *appropriate.*
- **78%** (N=14) agreed they spent *more time teaching outdoors* this school year than they did the last school year.

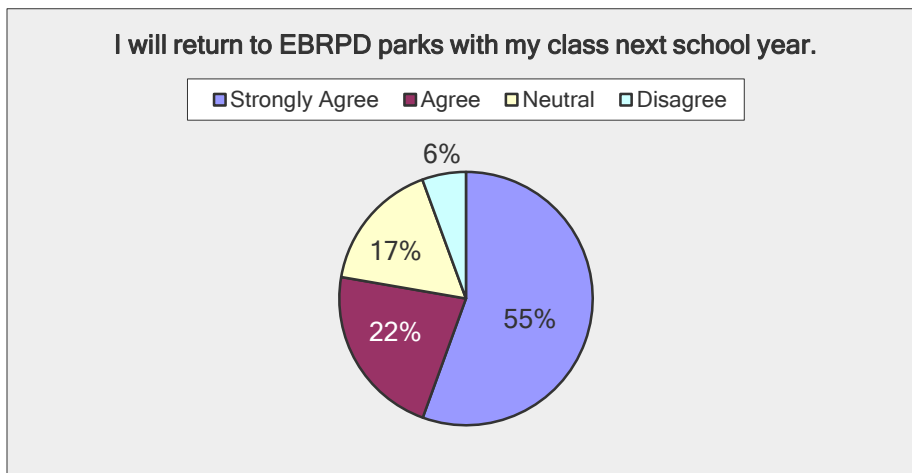
Teachers were asked to provide anecdotes about how KHOC was able to successfully engage students:

- *Plant a seed was very good. Students had fun watching and observing plant growth, as well as learning the names/functions of seed parts.*
- *Students were very excited about animal and bird adaptations and observing seeds and types of plants. My students grew to love hiking, much to the surprise of some of them.*
- *The bird beak lesson was really fun for them. (I've been using that lesson—a slightly different version of it—for 25 years. . . . Kids LOVE that activity, and it teaches them a lot in a very accessible way.*
- *The Native American lesson, especially how I expanded it. They also enjoyed the Coyote game. On our field trip, we made kites which was a huge hit and also put boxes out in the tall grass to look for bugs—they loved it. They would sit out there for a long time to find more bugs and were really excited by the diversity of nature they found.*
- *My students loved making kites, and they did a great job following step by step directions and helping each other. They were very excited to try their kites out.*
- *Plant a Seed, they loved being in the garden and observing the plants as well as planting a seed. Also following a trail was exciting and it made them feel grown up reading a map and being able to locate where they were.*
- *They really like the bird beak lesson and the night starts lesson. They liked the connection to birds and what they eat and how and they liked that they could go out at night to look at the stars.*

In terms of future impact:

- **89%** (N=16) of teachers said they *intend to continue teaching* lessons that get kids active outdoors in the future.
- **56%** (N=10) *plan to use KHOC lessons and/or booklets with other classes in future school years.*
- **67%** (N=12) *plan to share KHOC lessons and/or booklets with other teachers in my school or district.*

Most teachers, (**78%** or N=14 of 18 question respondents) Agreed or Strongly Agreed that they plan to return to EBRPD parks with their class next school year.



However, **all survey respondents** (N=18) said they would return to EBRPD parks on their own in the future; **61%** (N=11) *Strongly Agreed* that they would return, showing that the project was *successful in engaging teachers to spend more time outdoors.*

IV. Teacher Feedback on Project Processes

The survey addressed how the project processes worked (e.g., the project website, teacher orientation, evaluation forms, park trip requests), and suggestions for improvement.

For the most part, teachers expressed satisfaction with program processes, but several individual respondents had comments and suggestions about improving program processes, including the *Teacher Orientation* held in the fall, and most especially, *planning their class park trip*.

Some key results included:

- Only **50%** (N=9) Agreed or Strongly Agreed with the statement: *it was easy to plan my park trip*. Comments suggested that the bus scheduling forms and process were confusing (bus scheduling confusion is common, even outside of KHOC). Instructions are provided for reserving a bus during orientation and are provided on the KHOC website, but these can be forgotten by the time teachers are ready to take their trip. Moreover, this year some teachers were not able to take their first choice for a trip (the Little Farm at Tilden Park) because of unexpected construction overruns.

It was a challenge to coordinate dates that would work for both the bus and the park.

—A KHOC teacher

There was also some disappointment about not having park naturalists lead these trips, although during orientation, the trainer had expressed that KHOC was designed to be a self-guided program. For the most part, it was teachers with experience (at least 5 years teaching) who felt the lack of a naturalist-led program the most.

- About **33%** (N = 6) were Neutral or Disagreed with the statement: *the Teacher Orientation prepared me to implement KHOC in my classroom*. There were good suggestions for improving the orientation, including holding it outdoors so that outdoor teaching skills could be modeled.
- With regard to *ease of lesson completion during the class time available*, a few teachers had very important feedback that the “late start” KHOC had in the school year (with the orientations taking place in November) threw off their schedules. They had already taught certain lessons before revisiting them with the KHOC curriculum, and this made it harder to complete the three lessons before taking the park trip. EBRPD is very sensitive to this concern, and intends to conduct orientation in October in school year 2014-15. Since daylight lasts longer in October, it may be possible to teach more lessons outdoors in the evening. (See Section V for complete results.)

Despite some challenges, **78%** (N=14) Agree they would *participate in KHOC in the future* (33% Strongly Agree); 11% (N=2) were Neutral to this question and 11% Disagreed. Moreover, **96%** (N=17) of respondents said they would recommend KHOC to another teacher.

With some adjustments in timing, and clarification of expectations (i.e., clearer messages that KHOC is designed to help you teach outdoors *on your own*), we hope to address these concerns. We will also review bus scheduling instructions, and send out additional e-mails with instructions for reserving busses.

Comments: This section includes some of the most revealing teacher comments we received about improving program processes.

Regarding the Teacher Orientation:

- *It would be helpful if the majority of the orientation took place outdoors and modeled additional activities that can be done outside.*
- *Provide the training at an EBRPD and take participants through a model of what a visit could be at a park.*
- *More training on how to lead a class on an outdoor visit.*

Regarding scheduling/time spent in classroom:

- *Starting earlier (in the year) would have made it a lot more flexible and doable to complete more lessons. I continued to teach lessons after the deadline which also worked.*

Regarding planning the park trip making it easier:

- *We would have liked to take our students to Big Break Regional Shoreline, but not having been there myself, I was uncomfortable taking them. We also were disappointed to discover that there was construction at the Tilden Nature area/Little Farm after we were scheduled to go there. Luckily, we were able to change our destination last minute. It was very stressful and involved several trips to various locations.*
- *The scheduling process was very convoluted. We were not informed that the person who scheduled the bus was not the person with whom we had contact (for the KHOC program). So when I kept not hearing back re: if we actually received a bus for the day I'd needed it, I had to do a lot of digging to follow the chain of who I needed to contact. The answer was a name I'd never been given. There was no way I could have known that.*
- *It would be easier if the arrangements were made and classes were given choices. We had to go back and forth with dates which caused us to wonder if the program was worth the trouble.*
- *At the orientation, I was not told that the bus needed to be arranged by our district but that it would be arranged for the class. It was a huge headache. Also, there were limitations that were placed on the locations that were not mentioned initially.*
- *I was very disappointed to find out after joining KHOC that teachers could not use the docent service. I ended up doing a lot of work to make our field trip meaningful to my students and would rather pay for the Parks Express Bus than put the hours in myself to save that cost. Again, I think that having a docent lead them is a VERY valuable experience.*
- *I think that KHOC teachers should have access to park naturalists. There is so much that the naturalists/volunteer docents offer that teachers simply do not have the time/knowledge/skills to share with the students.*

Regarding the KHOC Website: A new KHOC website (with bus reservation forms, curricula support materials, etc.) went live in Fall 2013, and the vast majority (**77%** or N=13) of survey respondents had visited it. Moreover, the naturalist overseeing KHOC sent out monthly e-mail blasts reminding teachers about deadlines, scheduling a bus trip, etc. Comments included:

- The website was very helpful.
- It is . . . very user friendly.
- I would have liked some of the information, especially about Native Americans on the web earlier, we had already done the unit by the time it was posted.
- I would like to have information/suggestions available (in some kind of list) about which park sites are best suited to school field trips. It was somewhat stressful to think about appropriate trails, availability of bathrooms and picnic sites, bus accessibility, natural features, etc. all by myself to choose a site for the field trip. I would have used some sample trip/park ideas, schedules, etc. to help with my planning had they been available.

Finally, we asked teachers: Are there any other aspects of KHOC you would like to comment on? Any other ideas for improving the project? Responses included:

- The book is greatly enjoyed by the students, so should be a keeper. Thanks for all of it.
- A list of making it clear who to talk to at the various steps of the process would help. (e.g., the bus scheduling).
- I strongly recommend allowing docents to be present for the trips to make it safer for students and more educational. The teacher would still be able to support learning, but students would likely gather more information from people who are highly familiar with the park and their history. I was also very nervous to take kids out alone to parks in case an emergency happened. I do think the program is a great idea for kids and can be a great way to get kids to experience the outdoors. I would love to take a park trip on the future if docents were allowed.
- It was a little challenging going from the teacher manual to the student book. I also think the student book could be a little more user friendly. Some of the questions were vague and I am not sure what was wanted. My students loved the field trip to Briones. When I called to let them know we were coming, they cleaned up after the cows for us. We also really enjoyed the moon flip book and the Van Gogh Starry Starry night art activity.
- Suggestions: A list of grade 2-3 level texts for building content knowledge that goes along with the lessons. More information available in Spanish for families (about the programs and parks).
- Kids really liked having the booklets and are excited to take them home. They really liked investigating the map on the back and finding familiar places.
- Thank you for providing such a great program that is adaptable for special education students too. Due to their reading and language delay, I just had to modify the language. The content was relevant and useful for my students. It was very enjoyable. I look forward to implementing the program next year.

I really, really appreciate the free bus. So many teachers would LOVE to take their kids to a park, but transportation makes it impossible for many of us.

—A KHOC teacher

V. Comparing Pilot Years 1 and 2

In studying survey results from the 2013–2014 school year cohort, we noticed some differences when we compared data to results from the 2012–2013 cohort.

Although Year 2 results are generally quite positive, survey responses are generally, as we will explore below, less positive than they were in the 2012–2013 survey year. (These differences are interesting, though not statistically significant due to small sample size of teachers who took the survey.)

There are several potential explanations for these decreases.

In the first pilot year 2012–2013, a third of teachers dropped out of the program before completing any activities, and none of these teachers took the year-end survey. We noted last year that survey results could skew positively—we didn’t have any feedback from those who had trouble completing the program.

This year, teachers had to complete three lessons and their activity log before scheduling a trip – this minimized drop out. But we did have program “noncompleters” taking the survey, and sharing some of the challenges they had.

In addition, the 2013–2014 cohort began the program slightly “less comfortable” teaching outdoors than the teacher cohort from school year 2012–13: 70% were Comfortable or Somewhat Comfortable teaching outdoors vs. 87% last year. This discomfort, and being challenged with new techniques, may have resulted in less positive responses. In fact, at least two very experienced teachers were uncomfortable about not having park naturalist lead their park trips.

This feedback prompts us learn more in a third proposed pilot year, upcoming in school year 2014–2015. Since results from Years 1 and 2 were different, this will help us learn more conclusively how the program needs to be improved for the future.

Comparing educator comfort and skills teaching outdoors: As illustrated in the tables below, **67%** (N=12) of 2013–2014 teachers surveyed Agreed or Strongly Agreed that KHOC increased their comfort with leading classroom activities outdoors (compared to 88% in 2012–2013); **61%** (N=11) agreed that participating in the project increased their skills teaching outdoors (compared to 75% in 2012–2013).

Participating in KHOC increased my <i>comfort</i> with leading classroom activities outdoors.		
	Response Percent 2014	Response Percent 2013
Strongly Agree	22.2%	50.0%
Agree	44.4%	37.5%
Neutral	22.2%	12.5%
Disagree	11.1%	0.0%
Strongly Disagree	0.0%	0.0%

Participating in KHOC increased my skills in leading classroom activities outdoors.

	Response Percent 2014	Response Percent 2013
Strongly Agree	16.7%	31.3%
Agree	44.4%	43.8%
Neutral	38.9%	25.0%
Disagree	0.0%	0.0%
Strongly Disagree	0.0%	0.0%

Positive response levels in both questions are down from the 2012–2013 survey. This may be due to the higher level of program “noncompleters” taking the survey this year, or the fact that general comfort level teaching outdoors at the outset of the program was lower this year.

Furthermore, a few teachers indicated that they started the project year already very comfortable and skilled teaching outdoors, and that there had not been an increase in their comfort and skills as a direct result of the program.

Helping Teachers Meet Curriculum Standards: Overall, 50% (N=9) of teachers surveyed in 2013–2014 Agreed or Strongly Agreed that the lessons helped them meet curriculum standards. As seen in the table below, this rate is a decrease from the 75% response rate in the 2012–2013 survey.

KHOC lessons helped me to meet curriculum standards.

	Response Percent 2014	Response Percent 2013
Strongly Agree	5.6%	31.3%
Agree	44.4%	43.8%
Neutral	33.3%	25.0%
Disagree	16.7%	0.0%
Strongly Disagree	0.0%	0.0%

As discussed in Section III, concerns about the new Common Core curriculum standards, and criticisms from very experienced teachers who had developed their own effective teaching tools may have accounted for this difference.

We will explore the impact of Common Core on KHOC after it is fully implemented next school year. We also plan to invite teachers to share their own related curricula and lesson plans, potentially for posting on the KHOC website.

One indicator where results *increased* this year was the percent of teachers who agreed that that KHOC helped students *explore and master topics they were required to learn*. Results this year were **78%** (N=14) vs. 75% (N=12) last year. Teachers especially felt the positive impact in Science/Life Science.

A study by Lawrence Hall of Science at UC Berkeley and SRI International found that only 10% of California's public elementary schools receive high-quality science-based education, and that 40% of elementary teachers said they spend no more than one hour teaching science each week.⁵ EBRPD is delighted that KHOC can help promote mastery in this critical curriculum content area.

Engaging Students and Educators in Outdoors Education: One notable decrease was the percent of teachers who Agreed or Strongly Agreed that they plan to return to EBRPD parks with their class next school year: this rate decreased from 94% last year to 78% this year, with three teachers Neutral and one disagreeing.

The respondent who disagreed indicated she is retiring this year, making it impossible for her to return with her class next year.

However, of teachers who were Neutral, one did not take a park trip this year and had expressed ambivalence about not having naturalist assistance at park. Another had trouble scheduling her trip and was understandably disappointed that the Little Farm at Tilden Park was still under construction when she chose that as her park destination. The third was a very experienced teacher who said, "None of the lessons contained critical curriculum standards that I wouldn't have been able to meet in a different way." All three teachers were very experienced, having 38, 19 and 15 years of teaching experience, respectively.

In Section VI, we will explore improvements that could be made to address some of these concerns.

Teacher Feedback on Project Processes: As discussed in Section IV, more teachers than last year had difficulties and concerns about project processes, especially park trip scheduling.

This is one area where last year's survey, only completed by teachers who successfully completed all parts of KHOC, may have had positively skewed results. Possible solutions to teacher concerns are addressed in Sections IV and VI.

Despite the difference between cohorts explored here, EBRPD continues to feel encouraged by project results, and is excited about proposing a third pilot year to learn more about the best ways to encourage educators to teaching lessons that get kids active outdoors.

(The following chart details responses to process questions, comparing this year's survey results to last year's.)

⁵ *High Hopes – Few Opportunities: The Status of Elementary Science Education in California*, 2011.

Question	Strongly Agree 2014	Strongly Agree 2013	Agree 2014	Agree 2013	Neutral 2014	Neutral 2013	Disagree 2014	Disagree 2013	Strongly Disagree 2014	Strongly Disagree 2013
The <i>Teacher Orientation</i> prepared me to implement KHOC in my classroom.	28%	44%	39%	44%	11%	12%	22% (N=4)	-	-	-
The <i>KHOC Lessons</i> were easy to complete during the class time I had available.	6%	25%	67%	56%	22%	13%	6% (N=1)	6% (N=1)	-	-
It was easy to <i>plan my park trip</i> (e.g., use the reservation form, schedule a bus, choose a park, etc.)*	22%	31%	28%	31%	6%	19%	22% (N=4)	13% (N=2)	11% (N=2)	6% (N=1)
I was able to <i>reach a park staff member</i> before my trip to learn about resources available.+	31%	56%	25%	25%	44%	13%	-	6% (N=1)	-	-
The project <i>Evaluation Tools</i> (e.g., activity logs) were easy to use.	22%	44%	67%	44%	11%	6%	-	6% (N=1)	-	-

* Two teachers (11.1%) did not request a trip, so this question was N/A.

+ The program does not have data on the number of teachers who attempted to reach an EBRPD staff member but were unable to do so. It may be that many teachers simply did not try to contact staff. This is a question to explore in the next pilot year.

VI. Lessons Learned and Recommendations for the Future

EBRPD finishes the second pilot year of KHOC having learned some important lessons about improving teacher orientation and program processes. As noted, teacher survey responses from the Year 2 pilot cohort are generally less positive than they were in Year 1. Although critiques were relatively few, we take them to heart in making program improvements.

As a result, the EBRPD will conduct a third pilot year in school year 2014–2015 to gain more clarity about the difference between the first two cohorts.

The following lessons learned will be explored in pilot Year 3:

Lessons Learned about Future Teacher Orientation: First, KHOC had a “late start” in fall 2013–2014, with teacher orientations taking place in November 2013, instead of October, as in 2012. This threw off teacher schedules, and moreover, made it difficult to build teacher skills by modeling some of the lessons outside, as suggested by several teachers, because it was dark during evening orientation sessions.

EBRPD intends to conduct orientation in October in school year 2014–2015. Since daylight lasts longer in October, it may be possible to teach more lessons outdoors in the evening.

We have also learned about the need to stress important intents of KHOC during orientation:

- 1) KHOC is designed to be a self-taught program, so as to build teacher skills and confidence teaching outside. EBRPD envisions teaching outdoors and in the parks simply as a “change in venue” for the education teachers already do, and we hope they will conduct lessons outdoors and in our parks, during the project year *and* every year after that. To meet this goal, teachers need confidence to deliver KHOC on their own. Although this has been stressed in past orientations, it is very clear that many teachers want to have an EBRPD naturalist guide their park trip. We have learned that we need to do a better job promoting the benefits of learning to teach outdoors, both in the KHOC 2014 recruitment process and in teacher orientations. Modeling more lessons outside may be a way to meet this need. For teachers who are exclusively interested in naturalist-led trips, staff may need to make referrals to other EBRPD resources, such as the school reservations process, supervising naturalists, maps, and publications.

We were finding animals. We were finding mushrooms. We were finding holes that animals dug.

—A KHOC student from Aspire ERES Academy in Oakland

- 2) KHOC is not intended to be the only curriculum used to meet state standards and we encourage curriculum tailoring to meet individual classroom needs. We need to reassure teachers that there isn’t just one “right” way to teach KHOC. Moreover, we know that teachers are experts in their own classrooms, and if they have alternative curricula, we will encourage them to share them with other teachers during orientation.

Park Trip Improvements: This year, unfortunate construction overruns prevented some teachers from taking their first-choice trips. In fall 2014, program staff will need to carefully review planned construction to see if any such projects will impact trip scheduling this coming year; if so, we will try to let teachers know as in advance as possible.

As in Pilot Year 1, some teachers told us that bus scheduling forms and processes were confusing (bus scheduling confusion is common, even outside of KHOC). Although instructions are given during orientation, teachers may forget where to look for information or who to call if they have any questions.

This year, the KHOC Coordinator increased contact with the teacher participants via the number of email blasts and the provision of additional resources on the KHOC website. She also provided reminders of approaching deadlines, and encouraged teachers to contact her for clarification, ideas, or questions about their desired field trip destination. However, this coming year, KHOC staff may need to utilize the KHOC website and e-mail blasts even more frequently to help alleviate confusion. We could send reminders and links to bus request forms and reiterate deadlines every month. If we are not receiving requests in a timely manner, additional contact can be made.

Follow-up with “Lost” Teachers: In school year 2012–2013, 33% of teachers who undertook KHOC at the beginning of the school year were lost to follow-up; they didn’t submit Teacher Activity Logs.

The rate of teachers lost to follow-up was minimized this year (to 9%) with one simple program adjustment: all teachers had to complete three KHOC lessons and submit their completed Teacher Activity Log before they were able to schedule a park trip.

Although this technique was very effective, there was still one school, which originally had three teachers who had attended orientation, who essentially “dropped out” of the program. EBRPD staff visited this school, and spoke to the departing principal. It was found that conditions were very chaotic at the school, with many demands, and very little time, and that this had contributed to teacher overwhelm and inability to complete KHOC.

In the upcoming project pilot year EBRPD proposes to “adopt” this school in Antioch in Each Contra Costa County. EBRPD will provide additional training and resources for third grade teachers, as well as connect with other teachers and students to strengthen science instruction and schedule field trips.

Curriculum Materials and Exploring Alignment with Common Core: As indicated in section III, there were teachers who felt the KHOC curriculum was not as strong as what they had developed, and one or two who felt the soon-to-be-fully implemented Common Core standards were more rigorous.

As noted in the Teacher Orientation section, we need to do a better job explaining what KHOC is and is not, i.e., that it is a supportive tool, not the only classroom curriculum we expect teachers to use.

A few teachers mentioned similar lessons they had developed, and preferred. At EBRPD, we are continuously impressed by how creative and resourceful teachers are. We will issue an invitation for teachers to submit their own lesson plans for review, and potentially for posting on the KHOC website

as adjunct materials. We may also solicit recommendations for additional reading to post on the website.

Other materials requested included an East Bay plant and animal identification "pull out" book/field guide that kids could take with them on their adventures, as well as more Spanish language information and materials.

My students would not have received such a rich environmental and outdoor experience without the KHOC.
—A KHOC teacher

Finally, in next year's survey, we will ask teachers about the alignment of KHOC with Common Core to see if comments received this year are shared across the board, necessitating changes in the curriculum.

In conclusion, EBRPD looks forward to Year 3 of the KHOC project with great enthusiasm. We are excited about reaching out to more schools in Alameda and Contra Costa County, and deepening the impact of KHOC. We will continue to listen to teachers, students and families as they tell us what is needed to broaden and deepen their commitment to outdoor education, as well as their connection to improving health and well-being in our communities.

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With support and inspiration from:

