



Kids Healthy Outdoors Challenge (KHOC)

2016–2017 School Year Report

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KHOC 2016–2017 School Year Report

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Credits: Photos from Crab Cove by KHOC teacher Terri Kaneko of Del Rey Elementary School in San Lorenzo, and from Garin and Coyote Hills, by teacher Diana Kotake of Birch Grove Intermediate Elementary in Newark

I. Executive Summary

Purpose of the Project: *Kids Healthy Outdoor Challenge (KHOC)* was first implemented in 2012 with a goal of promoting outdoor education while also supporting third grade curriculum content standards (now including the Common Core Standards) in Alameda and Contra Costa County school districts. KHOC 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 East Bay Regional Park District (EBRPD) Master Plan 2013 highlights the importance of connecting youth to nature and building future environmental stewards. Also, significant data supports the effectiveness of parks and nature in improving health. Spending time outdoors contributes positively to student achievement, learning, and development. The Master Plan priorities include expanding efforts to attract young people to parks, and KHOC directly supports this plan.

KHOC includes a teacher guide and an age-appropriate student workbook. Each is comprised of ten sections aligned with the *California Children's Outdoor Bill Of Rights*¹ which states that every child in California, by the completion of their 14th year, should have the opportunity to experience 10 key outdoors activities: e.g., Connect to the Past, Explore Nature, Follow a Trail, Plant a Seed, Ride a Bike, Learn to Swim. *Many youth across EBRPD don't have the opportunity* to participate in these activities.

My grade level partner and I might possibly start a family hiking club at our school because there are so many hiking opportunities that are so close. KHOC really inspired us.

~A KHOC Teacher

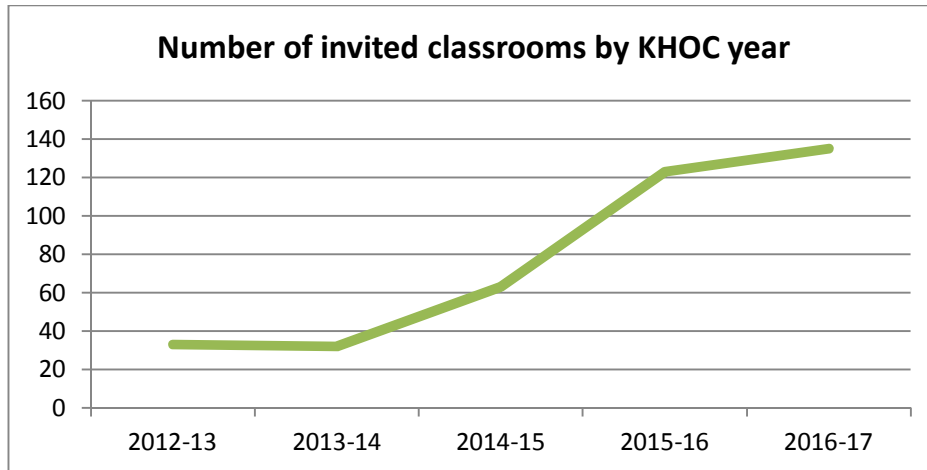
About half of KHOC's ten chapters are designed to support classroom learning *at school and in parks*, while the other half are ideal for students and families to explore *outside of class*. Each chapter contains fun, interactive lesson activities that relate to the chapter topic. For example, in *Connect to the Past*, lessons explore Ohlone Native American culture and games. In *Explore Nature*, students participate in hands-on experimentation with different types of bird beaks, and their adaptation to different environments.

School year 2016-17 was KHOC's fifth year, and each teacher was asked to complete at least three KHOC lesson activities, *and* to go on one class trip to an EBRPD park. Anticipated **outcomes** included:

- Increased comfort and skills teaching outdoors among participating teachers.
- 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.

Changes in the Project: In 2016-17, EBRPD once again increased the number of classrooms invited to participate, reaching **135 invited** teachers. As in past school years, all teachers who applied were invited to participate, including **62 teachers (46%)** who were previous KHOC participants.

¹ Developed by the CA Roundtable on Recreation, Parks and Tourism, http://www.parks.ca.gov/?page_id=24952



Increased funding over the past few years has made this expansion possible, and last year (2015-16), to accommodate expansion, EBRPD decreased and streamlined teacher paperwork. This reduced staff time needed to monitor and operate the program.

Teachers can also request a park naturalist to help guide their field trip, with applications due by early December. Having a naturalist is not a formal part of KHOC, and due to demand throughout the district, *KHOC teachers do not receive scheduling priority* over other teachers.

However, this year, with even more teachers participating, EBRPD also began to focus more on helping teachers take self-guided trips at four parks. All teachers learned about this option during the mandatory KHOC orientation in fall 2016. (Changes to the program this year are detailed in Section II.)

Some cultures in my classroom do not spend a lot of time outdoors in their free time. Those students were particularly excited for this opportunity. It gave them a life experience they might not otherwise have had!
~A KHOC teacher

School Year 2016-2017 KHOC Invitees: As noted, in fall 2016, 135 classrooms were invited to participate in KHOC. They represented 50 public schools in Alameda (76%) and Contra Costa (24%) Counties. In all, 15 school districts were represented; two charter schools were also included.

There was a wide variety of schools and students, with 62% reporting they came from an urban, 36% from a suburban, and 2% from a rural school (in Eastern Contra Costa). Average class size was 24. There was also wide variation in socio-economic class (i.e., low-income status, measured by the percent of students eligible for Free and Reduced Price Meals or FRPM), from ranging 4% at one school to 100% at others. The average number of students eligible for FRPM across classrooms was 63%.

	Average	Range
Class size	24	[14, 30]
% students eligible for FRPM	63%	[4%, 100%]
% English as a Second Language (ESL) students	40%	[8%, 85%] Spanish, Cantonese, Mandarin, Tagalog,

	Vietnamese, Arabic, Farsi, and Hindi commonly spoken
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Overall, students in classrooms invited to participate were **44% Latino, 17% Caucasian** (non-Latino), **15% Asian, 15% African American, 2% Pacific Islander, 4% More than One Race, and 3% Other.**

There was also variation in invited *teachers*. As was true last year, teachers average almost 15 years of experience in the classroom, but some were brand new, and others had 30+ years of experience (one teacher was in her 36th year).

Comfort level teaching outdoors among invited teachers was high at the beginning of the school year, with **88%** of invited teachers stating they were either **Very or Somewhat Comfortable** teaching outdoors; this rate was even higher than last year (83%). Only 5% of invitees indicated they were Somewhat Uncomfortable teaching outdoors. It is possible that the high rate of prior participants contributed to this level of comfort at the beginning of the year.



KHOC Participants and Survey Process: Of the 135 invitees, **104 or 77%** attended orientation, and so participated in the program at some level. (Full KHOC “completion” was defined as attending orientation, using KHOC lessons in the classroom *and* taking an EBRPD park trip.) The other 31 invitees did not attend orientation and were considered KHOC “non-completers.”

Overall, almost **2,500** third grade students participated, or had some level of exposure to KHOC. There were **about 87 class trips** to EBRPD parks during the year. These trips were taken by approximately **4,400** students and other passengers. (*Note:* This is a duplicated count. Many teachers took their classes on *more than one trip*. Passenger count includes students, teachers, parents and chaperones, etc.)

All 104 teachers who attended the KHOC orientation were asked to take a year-end survey in May 2017, and **55% responded** (N=57).

Of survey respondents, **84%** (N=48) had fully completed the program by using KHOC lessons *and* taking a park trip. Six teachers indicated they did not use KHOC lessons in the classroom, but did go on the park trip. One teacher indicated she had *not* taken a park trip, and complications with transportation contributed to this.

The 31 teachers who were invited, but did not attend orientation, were asked to take a shorter survey to provide feedback on why they had not participated, but only one provided this feedback.

Outcomes: The KHOC survey is conducted at the end of each school year to determine whether project outcomes were met, and to gain feedback from program participants.

The vast majority of teachers increase their *skills* (80%) and *comfort* (78%) *teaching outdoors* through participation in KHOC.

One of the major goals of KHOC is to increase educator comfort and skills teaching outdoors. For the fifth year in a row, the majority of teachers indicate that KHOC meets this goal: **80%** Agreed or Strongly Agreed that *participating in KHOC increased their comfort with leading classroom activities outdoors*; **78%** Agreed or Strongly Agreed that *participating in the project increased their skills teaching outdoors*.

It was also important that teachers not feel that KHOC took time away from meeting curriculum standards; **68%** Agreed or Strongly Agreed that *KHOC helped them to meet new curriculum standards*.

During the school year, EBRPD sought to increase student (and educator) enthusiasm for learning outdoors, particularly in park settings. Survey results show that this objective was successfully met:

- **78%** of teachers responding to the survey Agreed or Strongly Agreed that participating in KHOC *made their class want to spend more time being active outdoors*.
- **96%** Agreed or Strongly Agreed that lessons were *engaging and fun* for students.
- **96%** of respondents said they *intend to continue teaching lessons that get kids active outdoors* in the future.
- **60%** Agreed or Strongly Agreed they *spent more time teaching outdoors* this school year than they did the last school year. (This rate has decreased from prior years, and there were many previous KHOC participants in this year's cohort who accounted for the majority of those who did not agree. This suggests that *previous participants may have started to integrate outdoor teaching into their instruction plans each year*.)

I strongly believe these children will remember these outdoor education experiences and pass their appreciation for the outdoors to their children.
~A KHOC Teacher

Finally, information was collected from educators on how KHOC could be improved in future years. Section VII of this report details their challenges and suggestions (most particularly this year, regarding park transportation).

Conclusion: KHOC continues its tradition of helping teachers increase their skills and comfort teaching outdoors. With an increasing number of participants, and more and more teachers repeating the program, there is also evidence KHOC is beginning to change the way teachers teach.

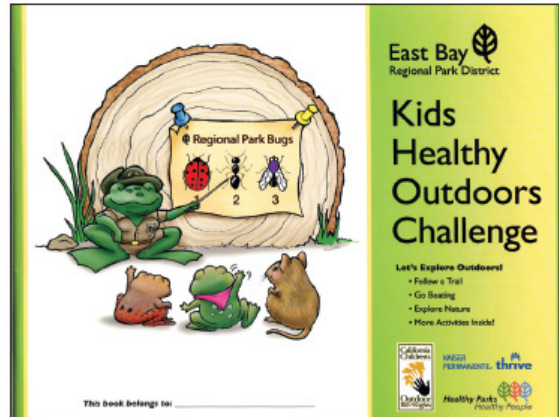
In the following report, we explore ways to deepen teacher skills and commitment to teaching outdoors, with a focus on helping teachers take the lead in introducing natural spaces to their students across the East Bay.

II. 2016-17 Program Changes

Every year, EBRPD makes program revisions based on teacher survey feedback. For instance, teacher suggestions to improve KHOC alignment with Common Core Standards were made during the summer of 2015.

These suggestions are balanced against the realities of coordinating KHOC activities for a growing number of teachers, including, this year, the 104 who attended orientation and continued on in the program.

This year, KHOC's long-time coordinator and champion, Supervising Naturalist Sharol Nelson-Embry, retired from the Park District and her leadership on KHOC was sorely missed. KHOC continued to divide participating teachers into five different training cohorts (each led by an EBRPD naturalist), so that each teacher had a central point of contact for questions and more personalized trouble-shooting.



Changes made to accommodate the increased participation, and to support teachers in developing their own outdoor teaching skills, included:

- *A focus on self-guided field trip options:* Although teachers could apply for naturalist leaders to help guide park trips, this year, KHOC promoted self-guided field trip options at four parks. This had been an *optional* part of KHOC training in fall 2015, but in fall 2016, *all* participants at the orientation received training on self-guided options and materials. Even prior KHOC participants were asked to attend a shorter orientation on self-guided trips, a change from last year, designed to promote long-term use of self-guided materials.

In fact, in school year 2017-18, KHOC will institute a *new guideline limiting a teacher's KHOC participation to three years* total. In the first year, they will receive their introduction to the program and self-guided options. In the second, they should develop their skills and activities, and in the third year, perfect their outdoor teaching skills by exploring the self-guided options. After this, we hope that teachers will have the skills to continue using the Regional Parks (and self-guided materials) on their own.

The four self-guided trips were developed with park-specific activities highlighting the natural and cultural resources of each park. Instructions were provided on the KHOC website, and activity packs and materials were available for free checkout to KHOC teachers at the following sites, geographically spread out through the district:

- Garin Regional Park, Hayward
- Radke Martinez Regional Shoreline, Martinez
- Redwood Regional Park, Oakland
- Shadow Cliffs Regional Recreation Area, Pleasanton

- *Optional curricula materials to help teachers design their own activities:* In Fall 2016, all East Bay elementary schools received the EBRPD's Ohlone Curriculum on a thumb drive. The curriculum aligns with third grade History-Social Science Content Standards. It is largely based on primary documents, some never published. The student content includes photos and quotes of more than 50 Ohlone, Bay Miwok, and Delta Yokuts of all ages. This curriculum can be used in conjunction with KHOC materials, and was discussed in the teacher orientations, and posted on-line.
- *A KHOC Facebook page in addition to the KHOC website:* [The KHOC website](#) has become a valuable tool for instructions and resources over the past several years. In 2017, EBRPD also had a KHOC Facebook page to help teachers connect to each other, but there were only a few Facebook participants. This resource may need additional promotion, or else be discontinued in the coming year.

Transportation Challenges: This year, teachers could request their park trip and submit a transportation application up until March 1, and were asked to complete their park trip by May 12, similar to prior years.

However, over the past year, EBRPD (and other educational/recreational programs) have faced a challenge in reserving buses. This is due to increasing competition for buses, with technology companies, in particular, now paying top dollar for commuter transportation for their employees. Bus companies also prioritize the needs of schools (i.e., regular school day transportation) over EBRPD requests, and moreover, some districts can only use certain bus companies. EBRPD has been trying to stick to that short list, further restricting supply.

In short, there are a limited number of bus companies to meet growing demand. EBRPD's Parks Express even added two bus companies to its list of contracted providers. However, for the first time in the program's history, KHOC was not able to guarantee a bus through its Parks Express program.

Due to these challenges, there were a number of occasions this year when a KHOC teacher booked a trip on a certain date, and EBRPD could not find a bus for that date. This made scheduling difficult, with the need to look at alternative dates. As an alternative, EBRPD asked some KHOC teachers to go through their own district's channels to book a bus, and then reimbursed that district for the cost.

These issues were a focus of several survey questions, and a discussion of feedback related to transportation is in Section VII.

III. 2016-2017 Participant Attrition

Attrition and Non-Completer Survey: Each year, KHOC experiences some attrition, that is, teachers who do not complete the basic program requirements (i.e., attending the orientation and taking the park trip).

Attrition can be due to competing demands for classroom time, and many other factors.

All 135 invitees were asked to attend an orientation held on a Saturday in fall 2016 (there were five choices of dates). New KHOC teachers were asked to attend a four hour orientation (with lunch provided), while returning teachers could opt for a shorter two-hour orientation expressly designed to teach them about self-guided trip options.

Of the 135 invited teachers, **31 (or 23%)** did not attend, and so were immediately counted as program non-completers. (The rate of those not attending the orientation in 2015-16 was just 14%, so *there has been an increase in the number of teachers who drop out right away, without completing any program activities*).

These 31 teachers were asked to take a shorter survey to provide feedback on why they had not participated, but unfortunately, only one teacher provided this feedback.

She remarked, *“I had family obligations on weekends that training was offered. I suggest an online training if you must ask for us to be trained.”* She indicated she had still visited Tilden Park with her class during the year.

IV. Survey Results: How Teachers Conducted KHOC

Rate of survey response and program completion: This year, of 135 invitees, 104 (or 77%) attended a KHOC orientation, and so had some level of exposure to the program and its curriculum. (All these teachers received copies of the curriculum and student workbooks at the orientation).

Each of these 104 teachers were asked to take the KHOC year-end “completer” survey in May 2017, and **57** teachers responded to the survey, providing at least partial survey responses (this represents a **55% response rate**, similar to last year’s 58% response rate).²

My students really enjoyed the field trip to Coyote Hills and were so excited to go on a hike! It really made history seem more alive and connected what we had been doing in the classroom to the land! I don't think many of my students get out to National Parks very often and they really loved it.
~A KHOC teacher

Responses helped to reveal the extent to which teachers engaged in KHOC activities during the year. Full KHOC “completion” was defined as attending orientation, using KHOC lessons (optimally at least three lessons) in the classroom, *and* taking an EBRPD park trip:³

- **Forty eight (48) or 84% of respondents had successfully completed the project**, using KHOC lessons in the classroom *and* taking at least one trip to an EBRPD park;
- Nine (9) or 16% indicated they had not completed KHOC in its entirety.
- Seven (7) of the nine who had not completed KHOC provided detail about how much they had completed. Six (6) did not use any KHOC lessons with their class, but *had* taken a park trip. One did not take a park trip.⁴



Like the overall pool of invitees, the teachers responding to the survey were largely experienced educators, with an average of 16 years of teaching experience. The range of experience was from one (1) to 37 years of experience.

Park Trips: Overall, there were about **87** class trips to ten (10) EBRPD parks taken by teachers/classrooms during the year. There were about **4,400** students and other passengers. (*Note:* This is a duplicated count. Some teachers took their classes on *more than one trip*, and the passenger count includes students, teachers, parents and chaperones, etc.)

As was true the last two years, the **most popular park destinations** were: Coyote Hills (21% of trips; relics at this location tie in very

² Not every teacher answered all survey questions, resulting in an N of less than 57 for some questions.

³ With the elimination of the year-end Teacher Activity Log in 2015-16, we rely on survey results to determine rate of completion, with the caveat that completer teachers are more likely to take the survey.

⁴ This teacher indicated that transportation was the reason she did not take the trip.

closely to Social Science standards) and Black Diamond Mines (22% of trips, a good site to learn about local history).

2017 EBRPD Parks Visited⁵

Black Diamond	22%
Coyote Hills	21%
Tilden Nature Area	14%
Crab Cove	12%
Big Break	8%
Sunol/Shadow Cliffs	8%
Garin	6%
Ardenwood	5%
Redwood	2%
Del Valle	2%

Use of KHOC Curriculum: The KHOC curriculum has a teacher guide, as well as a student workbook full of activities such as *Connect With the Past* (which focuses on Ohlone history in the East Bay), *Plant a Seed* (which reinforces curriculum content about how plants grow), *World in a Box* (in which students put a bottomless box on a patch of earth or grass and draw the things they see in the box) and *Bird Bill* adaptations (in which students use tools like tweezers and toothpicks to lift different types of “food”).

From survey data, we know that **49** respondents (**86%**) *utilized the KHOC curriculum in their classroom*. They were asked to comment and give feedback on the KHOC lessons, and how students reacted to them. Comments included:

- *Some of the KHOC activities that stand out are Plant a Seed and Nighttime Animal Hunt/Constellations.*
- *Kids also did most of the independent activities in their workbooks.*
- *My students love science in any form, especially anything hands on, so the lessons were fun for them.*
- *They loved them we really enjoyed Follow a Trail and Make a Kite.*
- *I liked the illustrations that came with the lesson and also the directions were grade appropriate.*
- *My students really enjoyed the lessons we were able to get to. The lessons allowed us to get outside and do activities that they usually wouldn't do on their own.*
- *The class enjoyed making the moon phases books.*
- *The students really enjoyed dissecting the seeds. It fit perfectly into our science curriculum. They also enjoyed being outside for many of the activities.*
- *Everything, from the workshop, to the lessons were nicely done and well thought-out.*
- *The KHOC lessons were fun and memorable for students. They also match well with our school's STEAM focus.*

I appreciate the lessons compiled in a workbook format. This helps us take them around where ever we go. It's an easy way to stop and reflect on what kids are doing, whether it is connecting with the outdoors or connecting to the past.
~A KHOC teacher

⁵ This count was based on the KHOC Master Log, and represents an estimate based on trips entered.

- *I like how you have added more of a writing component to the lessons.*
- *My students loved the booklet & our field trip. They look forward to the outdoor lessons the most. It has encouraged more families to get out and explore more & be more active.*

The majority (**87%**) of survey respondents indicated that *KHOC lessons were easy to complete during the class time I had available*. However, there were disagreements (4%) with this statement, and comments alluded to the traditional time challenges teachers face: *“Some lessons took longer than one class period, so we had to spread them out over 2-3 periods to ensure that they get a lot of writing done.”*

Overall, teachers agreed that *KHOC lessons were age and grade appropriate* for students, with **96%** Agreeing or Strongly Agreeing this was so.

Finally, in the KHOC orientation message trainers emphasize that the curriculum can be used as a *guide* for teaching outdoors, that it can be *adapted it to make it useful* in lesson plans. So each year we ask teachers whether they *individualized or tailored the KHOC curriculum to meet the needs of their classroom or schedule*. (This could include shortening lessons or substituting alternative content due to limited class time, or different teaching styles and class characteristics.)

This year, **62%** of survey respondents indicated they had individualized or tailored the curriculum. Some adaptations were made for practical reasons such as time and resources available:

- *I skipped some parts and jumped around so that it was related to what we were going to do on the field trip.*
- *We were short on time, so I needed to cut down on the seed project. I adapted the others to what was pertinent to our location and resources.*
- *For World in a Box, I had them gather only animals from the surface. I did not have the tools or the time for students to dig. Also, we focused on animals rather than plants because we were learning about the difference between internal and external skeletons.*
- *We modified scavenger hunts and did them on field trips. Since we don't have the space in our school, we did the box exercise in a garden instead of a grass patch.*
- *Sometimes we did not have enough time to finish a lesson so we would shorten it. For example, in Learn to Swim, I let the kids finish the crossword at a different time, like during Friday Choice Time or as a sponge activity.*

Some made adaptations to align activities with other curricula:

- *Seeds, parts of a seed, and seed dispersal are part of our FOSS (Full Option Science System) Curriculum. Also, my class had a garden bed where they planted kale, Chinese broccoli, sugar peas, cauliflower, so I skipped many of those pages.*
- *The Animal Tracks went very well with our Science unit. I had the students check if the animal they picked for their research was one of the animals featured, and then used the picture of the tracks for their report.*

- *I didn't eliminate content, but I added to some of the lessons, specifically about the Ohlone people.*
- *We planted our own pumpkin seeds and used the scientific method to track its growth, and used Scholastic Science edition on constellations with our KHOC lesson.*

Some of the creative and interesting adaptations made this year included the following:

- *My students wrote haiku poems about our field trip to Coyote Hills and pasted them on their mini paper kites. We were able to display them during Open House.*
- *I tailored the content towards ocean science, by adapting a diorama project to fit in with habitat around water and other geographic areas. I tailored it because I wanted my students to understand why service learning and not littering or not picking up litter endangers our community.*
- *For Follow a Trail, we discussed the specific tracks we found around our school and the differences with the ones we found in the park.*
- *For the Connect to the Past lesson, I brought in realia that I have about Native Americans. We learned a little more about the plants they used and foods they ate. I also use the internet to show them more about Native Americans and local tribes.*

Lastly, one teacher commented on adapting KHOC for English Language Development (ELD) students: *"The lessons were not appropriate for my English learner population, so I simplified and modified them."*

Another teacher noted, *"I made sure to explain the lessons more fully, using photos and realia, so my ELD and less-nature experienced students would be able to do the lessons and learn best."* We address this issue in Section V of this report, following.

V. Cultural and Linguistic Issues

KHOC is designed to be used by third graders of different cultural backgrounds and language abilities. So in the survey, EBRPD asked teachers *how students of different cultural backgrounds and language abilities reacted to KHOC activities*, and whether any groups had difficulties.

Most of the respondents indicated that their students *all* benefited from the program:

- *My students of all cultural backgrounds loved the program. The hands-on activities kept their attention and interest.*
- *All my students are English Learners. The workbooks and field trips help my students understand concepts more when they experience (them).*
- *My class was able to access the content easily, even with a variety of reading/writing abilities.*
- *I only had one student who does not speak English at all and she was still able to communicate in Spanish based on the pictures.*
- *I think the students did well because of the visuals you provided in the lessons to support their understanding.*
- *My students had no difficulties with any of the lesson because we discussed the directions in detail before they began.*
- *I think the lessons worked really well with third graders and no particular group had an easier or harder time connecting.*
- *This year I had a class with some 2nd graders as well. They did a magnificent job with the lessons and experiences.*
- *All kids, including special needs, benefited.*

Nature is universal! Parents appreciated getting to know our environment better, too.
~A KHOC teacher

But several respondents indicated that English learners had more difficulty with the lessons:

- *There was a lot of reading and it was difficult for my students who were newcomers to the country.*
- *I couldn't really use most of the stuff with my class because I have a very high population of English learners from Latin America and Asia.*
- *The activities worked well with all groups, but some of the writing activities were difficult for some populations.*
- *Non-English speakers had a harder time, but I do think they enjoyed getting out of the classroom and seeing the out of doors.*

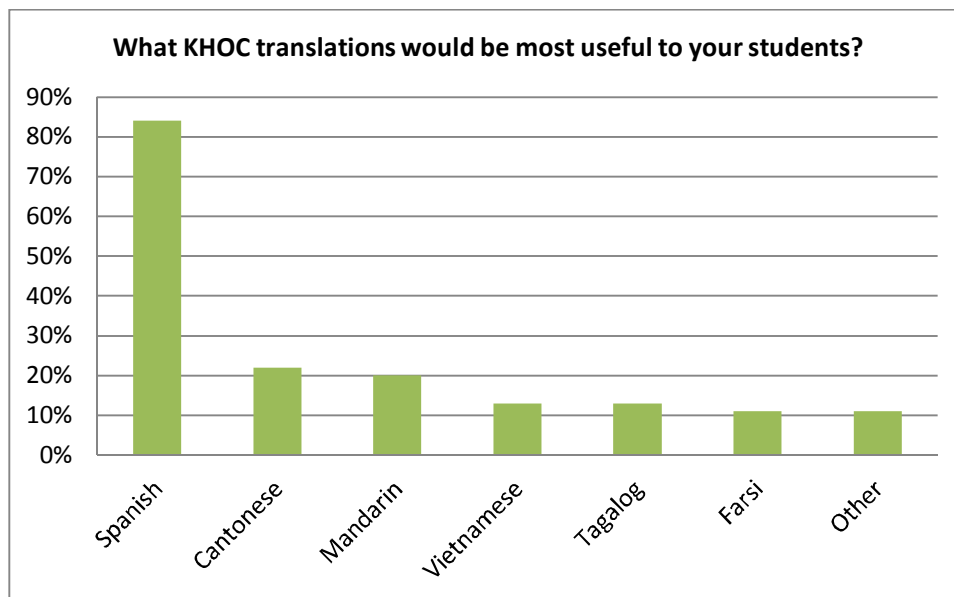
Several teachers mentioned the different levels of exposure to nature among students of different backgrounds:

- *I have a large population of English Learners. It was very important for them to understand that learning happens everywhere, not just in the classroom. Many students from India never leave*

school to learn, so these trips not only give them physical examples of academic content to help understanding it helps develop their sense of our American school culture.

- The second language learners were very excited to learn about the outdoors. Many of them do not get the opportunity to get to the parks, so this was a good way to expose them to new things.
- I think there is still too much of a euro-centric tilt to the lessons. I would say only a few of my students had ever been on a camping trip or boating. Also many have never had a swim lesson.

Over the past several years, some teachers have indicated that they would like *translations of the KHOC curriculum in languages other than English*. This year, the survey included questions about what language translations would be most helpful to have. **Spanish (84%)** was the top choice, followed by Cantonese (22%) and Mandarin (20%).



I know colleagues were hoping for a Spanish curriculum.

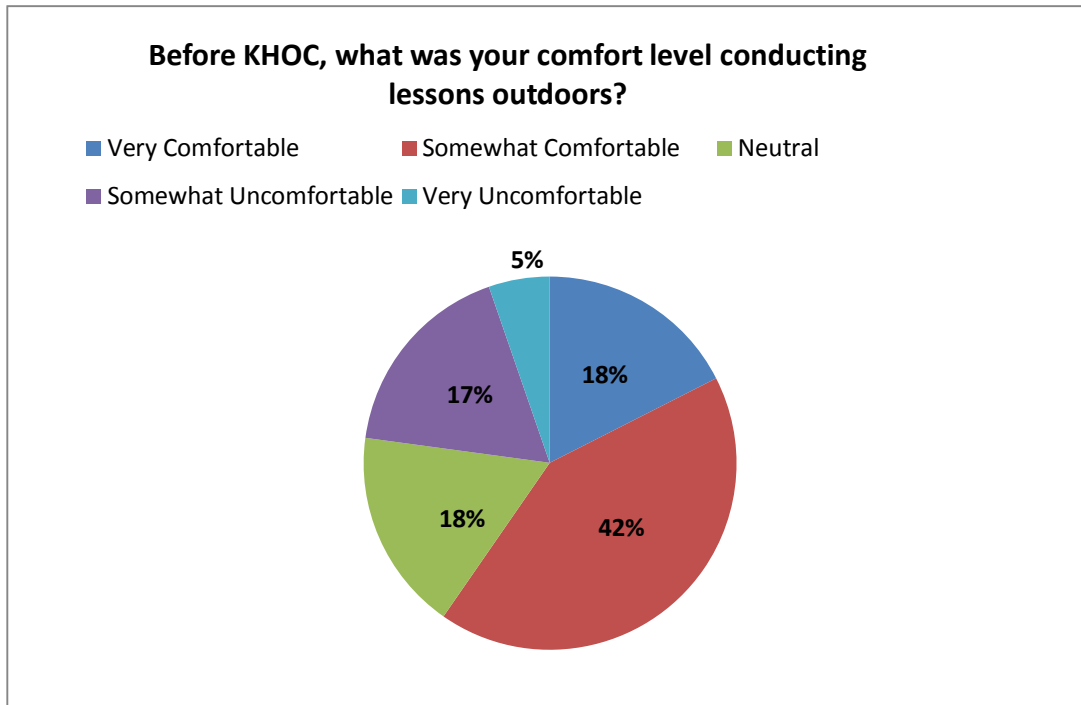
~A KHOC teacher

On average, respondents indicated that seven (7) students in their classroom would benefit from a Spanish translation; five (5) from a Cantonese, four (4) from a Mandarin, and three (3) from a Vietnamese translation. Based on resources, EBRPD is considering translating the KHOC curriculum into Spanish for school year 2018-19.

VI. Outcomes

I. Increasing Comfort and Skills Teaching Outdoors.

Respondent skill and comfort teaching outdoors: To be able to measure an increase in skills and comfort level *teaching classes outdoors* among survey respondents, we asked about their level of comfort conducting lessons outdoors before KHOC. At least **60%** (N=34) of the survey respondents said they had had at least some level of comfort teaching outdoors before participating in the project.

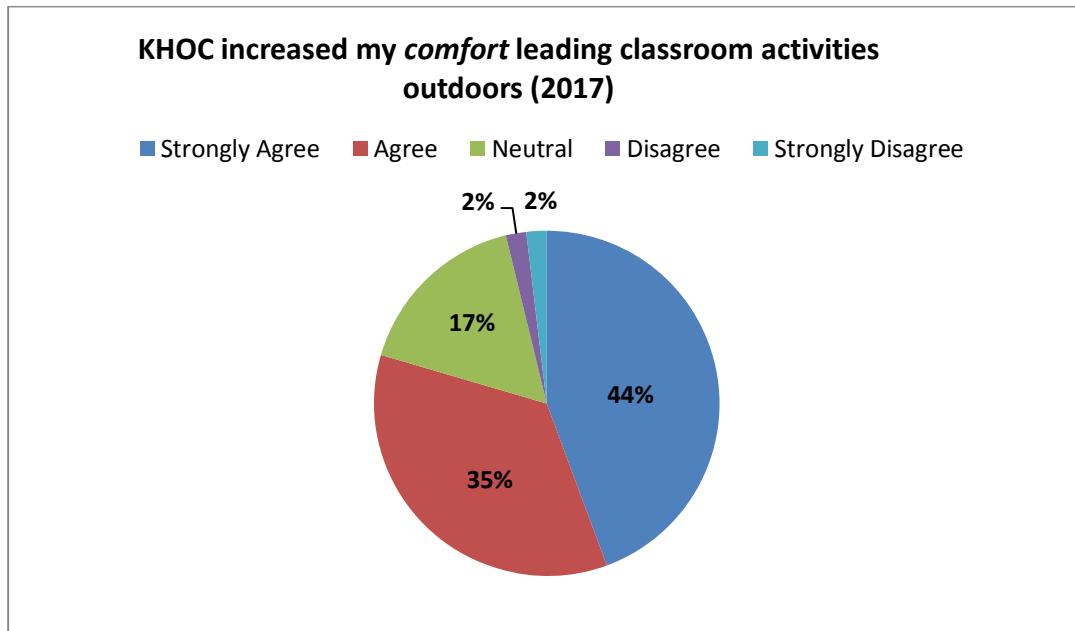


Interestingly, the survey respondents overall had less overall comfort than the original pool of all invited teachers (as indicated in their applications at the beginning of the school year). At least 22% of survey respondents had some level of discomfort, compared to just 5% of overall originally invited participants:

Comfort level	All invitees in fall 2016	Survey respondents in spring 2017
Very Comfortable	53%	18%
Somewhat Comfortable	35%	42%
Neutral	7%	18%
Somewhat Uncomfortable	5%	17%
Very Uncomfortable	0%	5%

As a result, there was considerable room for KHOC to help survey teachers feel more comfortable teaching outdoors, a major project goal.

This year, of 54 teachers responding to this survey question, **80%** (N=43) Agreed or Strongly Agreed that KHOC increased their *comfort* with leading classroom activities outdoors:

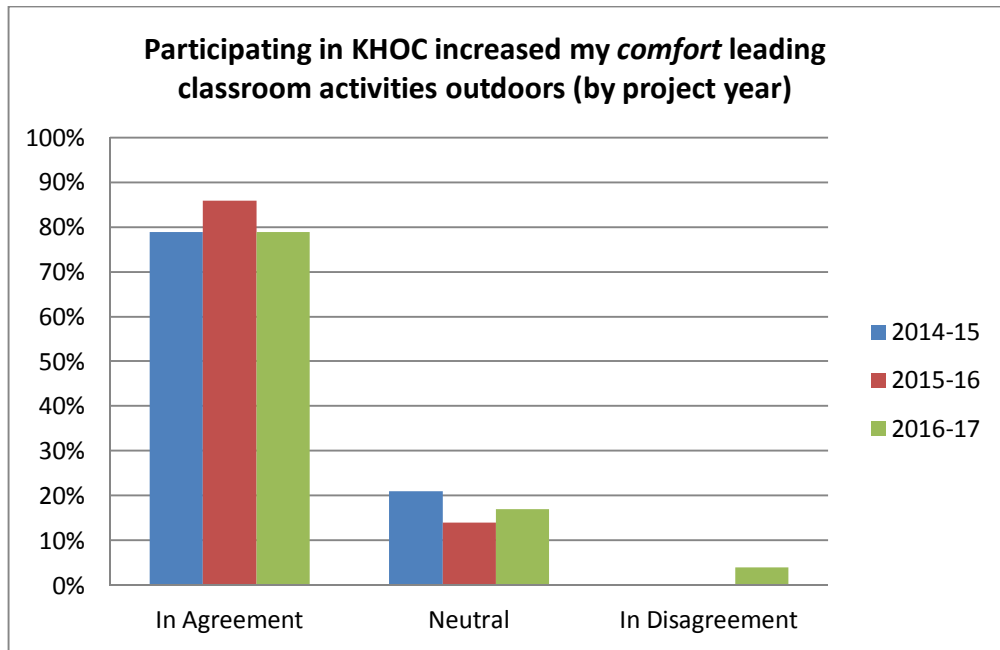


I went to Coyote Hills the weekend before our field trip to see the park and plan routes for hiking. At the time, I was wondering (and a little worried) about how my students and parents would react to climbing a steep and narrow trail along the side of the hill. They loved it and felt it was so exciting! ...Yes, some were complaining about being hot and tired, but in the end, I know they really enjoyed it... Although outside lessons might not always go as perfectly as planned, I feel more confident about getting outside and creating experiences that students may or may not have ever had. ~A KHOC Teacher

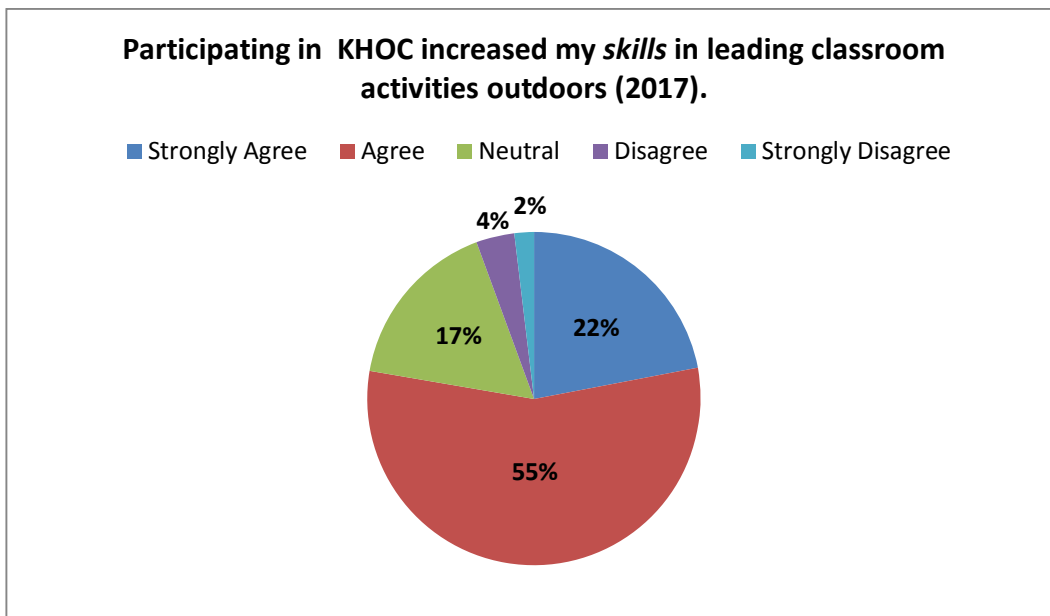
Teacher comments that underscored growth in *comfort* included:

- *I feel like I can keep my students busy all day outside now...*
- *I learned many different activities utilizing the elements found outdoors (bugs, plants, animals, etc.) to do with my students. The program opened my eyes to how the outdoors can connect to the lessons we learn in the classroom.*
- *I felt more confident about what questions to ask my students and how to hold their attention with interesting activities.*
- *It was nice to know about the activities that were available at the parks when we got there. That helped with group management which was always the tricky part for me in the great outdoors.*
- *I was able to go back to a park that I had visited the year before. I knew what to expect, even though our program was different.*
- *I am not originally from the Bay Area; therefore, I am not familiar w/ all the history, resources, etc. It has been wonderful to ...learn about the history, flora, and fauna with the park.*

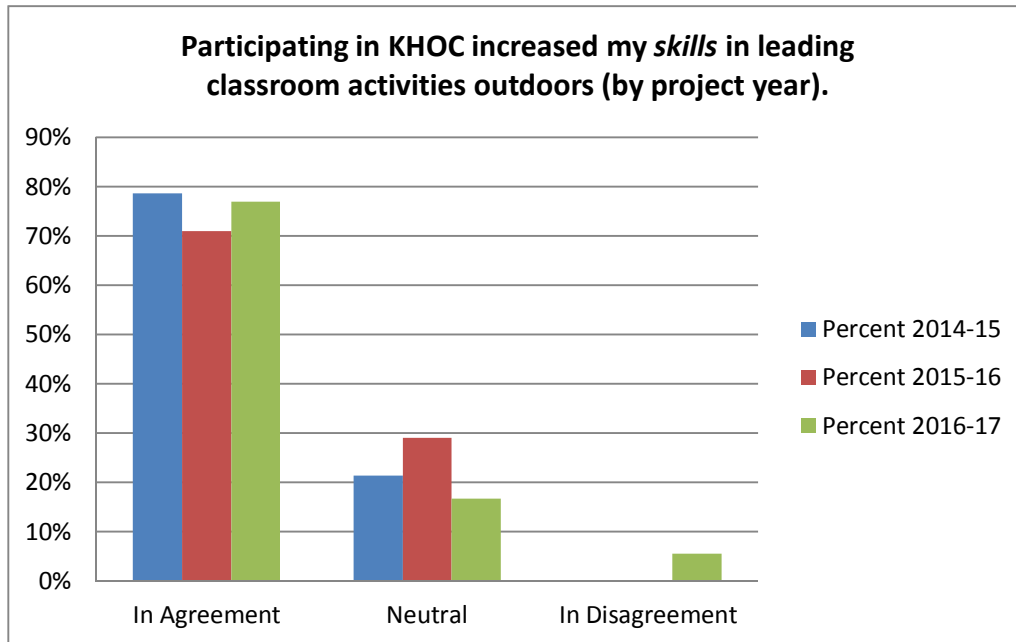
However, over the past three years, the impact of KHOC on teacher comfort may be decreasing, with more respondents likely to disagree that participating increases their comfort teaching outdoors.



Next, over **77%** (N=42) Agreed or Strongly Agreed that participating in the project increased their *skills* teaching outdoors:



As with increase in comfort, more teachers are likely to disagree that their *skills* are increasing than in the past two project years. It is our hope that these findings are due to repeat KHOC participation and an ongoing growth in outdoors teaching skills (so that they start from an already high baseline of comfort and skills).



Teacher comments underscoring growth in *skill set* included:

- *Getting students interested in nature and their surroundings can be difficult with kids that are used to being indoors. The skills of making learning about nature and science hands-on have helped me get my students' attention and interest.*
- *I gained more experience managing my students outside. I saw what things worked with my students outside and what didn't.*
- *I am more patient. I know now to explain what we are going to do and why they need to be safe and make good choices. They seem to listen better outside.*
- *Seeing the activities the naturalists gave the students helped me to visualize and plan how I would lead the same or slightly different activities.*
- *Knowledge of park locations and expertise of naturalists at specific sites increased.*
- *I think I learned to design a task (big or small) for students to do while outside as part of the activity. Also, to bring the same expectations from the classroom, outside: listening skills, respect for the environment, and being safe.*
- *Little things like gathering students closer, being able to identify certain plants and animals more confidently (from our walk during training).*
- *Implementing outdoor signals so students know when to quiet down. Being comfortable with students outside exploring in small groups within a defined boundary.*

Giving up control is not always easy for the classroom teacher, and not knowing everything is also tough, but when we approach it as we're learning altogether, it's super fun.
~A KHOC Teacher

- *We led two classes through the Oakland Redwood regional parks. I really appreciate the suggestion in one of the teacher materials to have a "silent time" in the Old Church. It really changed the dynamic because we really saw kids looking and listening. The other teacher didn't think they could do it, but they DID! I really am excited to take my class back there.*

Increasing skills and comfort for those originally less comfortable teaching outdoors: Of the 40% of respondents (N=23) who had indicated they were either Neutral or Uncomfortable about teaching outdoors at the *start* of the year, **68%** Agreed or Strongly Agreed that participating in KHOC increased *their comfort* and *their skills* leading classroom activities outdoors. This is less than the rates in the overall teacher respondent pool, indicating that KHOC impact was felt less among those teachers who were originally less comfortable.



In addition, **65%** Agreed or Strongly Agreed that they *spent more time teaching outdoors this school year than I did last school year* (35% were Neutral on this statement). This compared to 60% in the overall respondent pool.

Overall, **90%** of these “less comfortable” survey respondents Agreed or Strongly Agreed that they *intend to continue teaching lessons that get kids active outdoors in the future*. (Among overall respondents, 96% of teachers agreed.) However, **100%** would participate in KHOC again.

2. Helping Teachers Meet Curriculum Standards.

In introducing outdoors education into third grade classrooms, it was important that teachers not feel that KHOC took precious time away from meeting Common Core Standards, now implemented across the state. (The KHOC curriculum had been redesigned in summer 2015 to strengthen the alignment with Common Core.)

Overall, **68%** of respondents Agreed or Strongly Agreed that the lessons helped them meet Common Core standards, an increase from 53% last year, and 59% in 2014-15.

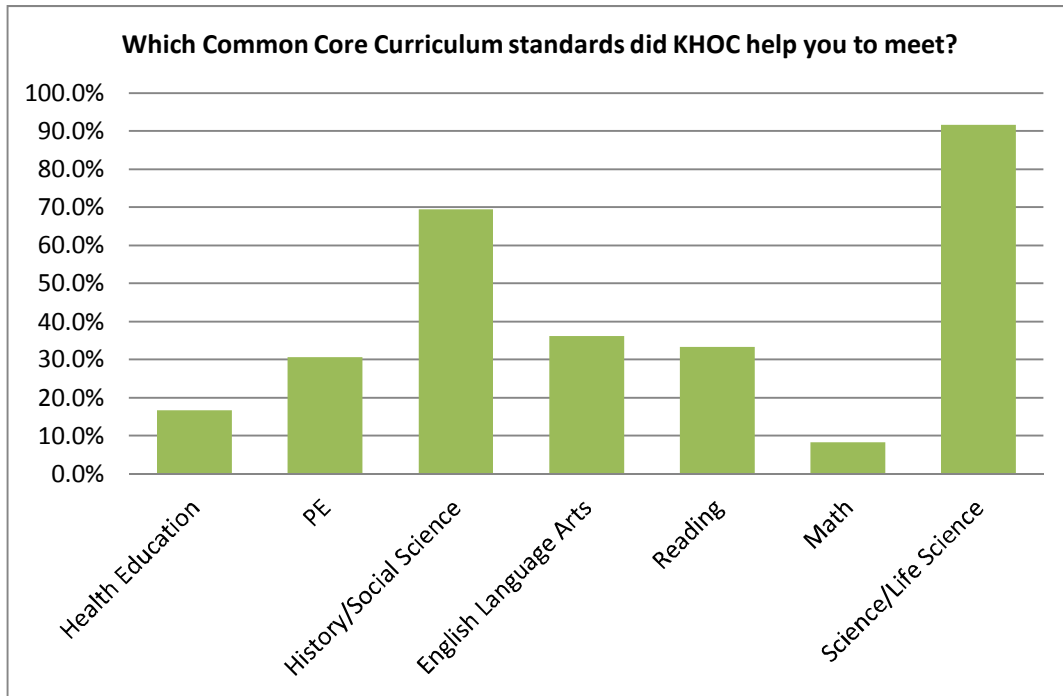
While many teachers expressed appreciation for the KHOC curriculum (e.g., *“I felt all of the activities aligned nicely with our core curriculum standards.”*), many teachers had suggestions for improvement.

Suggestions for Curriculum Improvement

- *Perhaps list the 3rd grade standard that is covered in the KHOC lessons and how it's applicable. Also, check to see how the lessons integrate across subjects (science and social studies).*
- *Maybe including more texts for students to read, or math applications?*
- *Some of the stuff in the book could be adjusted to add some reflection on the activities.*
- *Many students now have access to tablets. It would be nice if there were some links for them we could access to prepare them for the field trips and get them excited about going outside.*
- *We teach by units and KHOC did not align with our modules. It would be nice if grouped by science strand.*
- *Additional simulations like from the old Project Wild curriculum or other links on EBRPD's website that teachers could also post would also be nice.*
- *More real photos and kits would be fun, but I don't have the money for it.*
- *I did not think that the workbooks were accessible for a lot of my students in terms of the space to write and the level of reading skill required.*

KHOC isn't intended to be the *only* curriculum used in a classroom, but state curricula are constantly changing and KHOC is intended to keep up with these standards. As noted earlier, we also continue to encourage teachers to adapt KHOC with their own ideas to support unique class needs and protocols.

Among teachers who felt that *KHOC supported the Common Core curriculum*, the following subjects were cited as those most supported by KHOC: Science/Life Science (92%); History/Social Science (69%), English Language Arts (36%); Reading (33%), and Physical Education (31%).



Doing the KHOC lessons allowed my students to delve deeper into topics they already learn in class. Taking the field trip made the lesson come to life.
~A KHOC teacher

Moreover, 82% of respondents Agreed or Strongly Agreed that KHOC *contributed to students' mastery of curriculum content*, a rate comparable to past years. This is important because KHOC is designed to be a supportive curriculum *tool*, not the curriculum itself.

Teachers had many, many anecdotes to share that underscored student learning, including the following:

- *Several of my students are struggling students who were very engaged with the bird beak lesson...and when they were in the park they were attentive and really looked for the kinds of birds we talked about. They could also discuss them in groups the next day.*
- *This year my students were able to complete a report on an endangered species. Students used researching skills to find out information about their animals, as well as use the naturalists as experts to obtain information regarding their animals.*
- *My students wrote about both of our field trips which helped them improve their writing.*
- *My students wrote about what they had learned about the Ohlone people using evidence from our readings and visiting Coyote Hills, and participating in the Naturalist's program.*
- *When we were on our trip to Crab Cove, my students were able to answer many (if not most) of the naturalists' questions due to the class lessons.*
- *When exploring outside, students were using the names of trees and leaves as they were talking with peers to explain what they had discovered.*

- *My students showed they learned about animal tracks because when we visited other parks, they remembered the characteristics of the different animal tracks they found.*
- *Before we went to Tilden Park to do a pond study we did some of Lesson 4 Follow a Trail. They enjoyed being animal detectives while they were there. When we returned to class, many were successful drawing themselves on the trail with details.*
- *As we studied science, history, and other disciplines throughout the year, students would use the field trips we took to East Bay Parks (KHOC & non-KHOC) as touchstones in their inferencing and connections. One student referenced the ruway house at Coyote Hills as we studied 3 dimensional shapes in math - she likened it to a hemisphere.*
- *We have crayfish in our classroom. The crayfish at Big Break was right in line to what scholars are learning. The fieldtrip was an opportunity for scholars to see organisms in their natural habitat.*

This is precisely the kind of alignment EBRPD hoped would support students and teachers in meeting curriculum standards.

Oakland Public schools will be adopting new curriculum for the 2018-19 school year that is aligned to the Next Generation Science Standards, so I'm wondering if this program will also be changed.

~A KHOC teacher

Next Generation Science Standards: The state of California is in the process of implementing new Next Generation Science Standards (NGSS). To prepare for any future needed revisions of KHOC, EBRPD asked teachers if NGSS standards had begun to be introduced in their schools (e.g., having trainings, reviewing the NGSS and Crosscutting Concepts); **two thirds (66%)** of teachers indicated that NGSS *had begun to be introduced at their schools.*

Teachers had ideas for KHOC alignment with NGSS:

- *Making crosscutting concept connects could also easily be added as a writing prompt, or even as an outdoor search (What examples can you find of each of the concepts?).*
- *Even more curriculum with local plants and animals to show heredity traits.*
- *Our school and many schools in San Leandro Unified are using a website called Mystery Science to implement the new standards. You could look into aligning to that.*
- *NGSS standards cite engineering. Example: the Naturalist at Black Diamond could talk more about the engineering involved in mine building.*
- *Maybe a lesson on water and climate.*
- *Perhaps a little section on how to restore creeks/habitats to maintain the parks systems. Also, third grade life science is about the life cycles and ecosystems. I was wondering if a lesson could focus on plant and animal interactions in the parks and what we could see in the changing seasons.*
- *Check out the FOSS kits⁶ for third grade which are aligned to the NGSS. They have units on Water, Motion and a biology unit.*

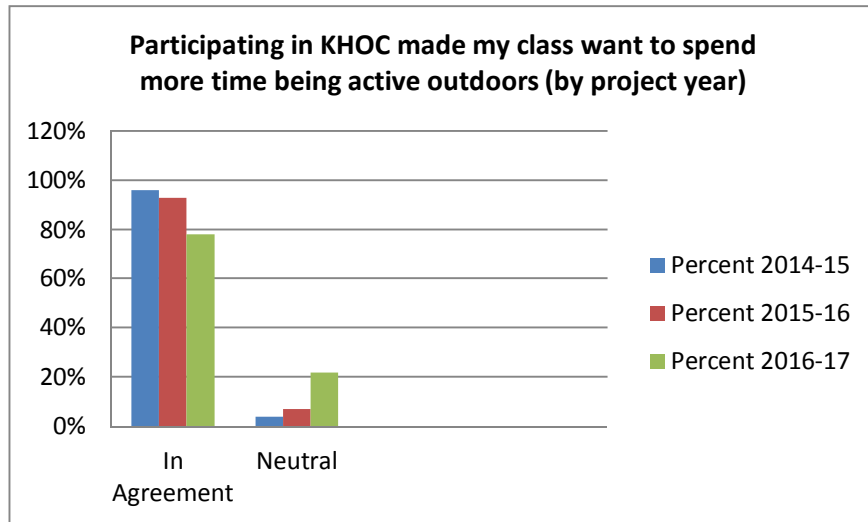
⁶ There are several different aligned curricula that teachers referenced. For example, FOSS (Full Option Science System) is the core science curriculum for grades K - 5 in Oakland Unified School District. OUSD is also using Science Instructional Reflection and Assessment (SIRA), an instructional guide that goes hand-in-hand with FOSS modules to prepare teachers and students for the shift to NGSS.

(<http://science.ousd.org/foss/Elementary%20Science%20Implementation%20Guide.pdf>)

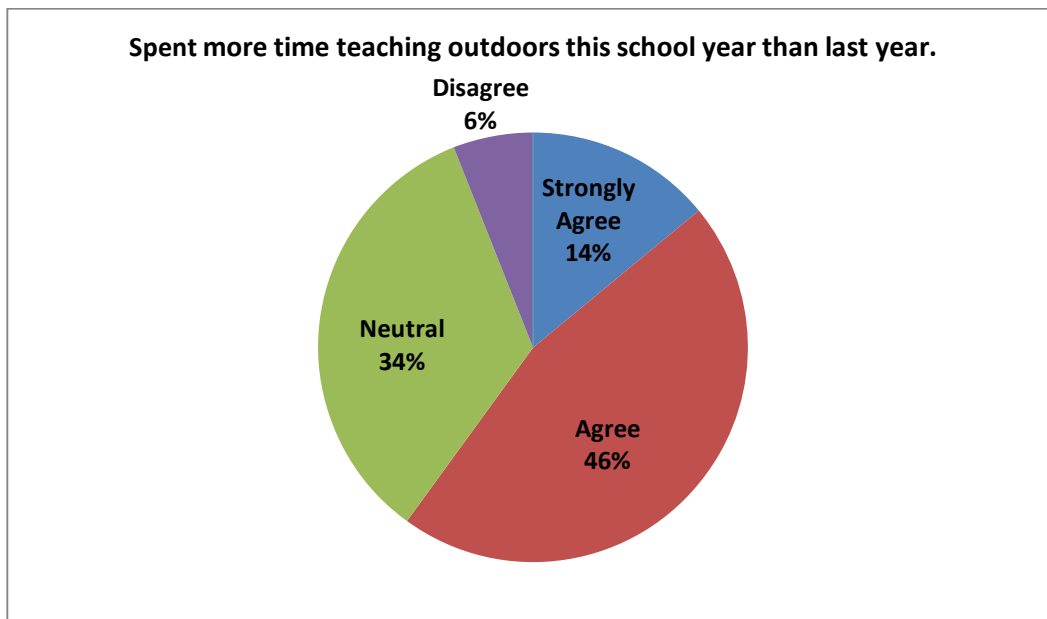
3. Engaging Students and Educators in Outdoors Education.

Through KHOC, EBRPD seeks to increase student and teacher enthusiasm and engagement in learning outdoors, particularly in natural park settings. As in past years, the vast majority (**96%**) Agreed or Strongly Agreed that lessons were *engaging and fun* for students.

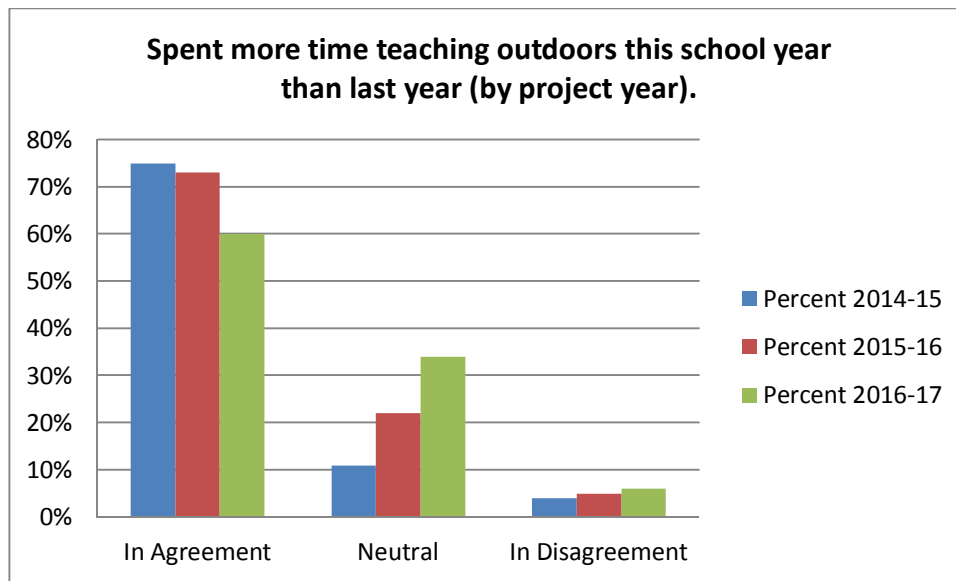
Moreover, **78%** (N=50) of respondents Agreed or Strongly Agreed that participating in KHOC *made their class want to spend more time being active outdoors*. No teachers disagreed with this statement, however, more 2017 survey respondents felt Neutral about this than in the past two past years:



For teachers, 60% (N=30) Agreed or Strongly Agreed they spent *more time teaching outdoors* this school year than they did the last school year.



The percent of teachers agreeing that they spent more time teaching outdoors this year is also less than in the prior two years, suggesting that some teachers came into KHOC this year already spending some amount of time teaching outdoors.



As noted, there were many prior participants in this year’s cohort, and in fact, twelve (12) of these prior participants did not agree with this statement, accounting for the majority (60%) of those who did not agree. *This suggests that the impact of KHOC is being felt, and that repeat KHOC teachers are integrating outdoor teaching into their instruction plans each year.*

In terms of future KHOC impact:

- Similar to last year’s respondents, **96%** (N=46) of teachers said they *intend to continue teaching* lessons that get kids active outdoors in the future.
- **83%** (N=40) *plan to use KHOC lessons and/or booklets with other classes in future school years.*
- **75%** (N=36) *plan to share KHOC lessons and/or booklets with other teachers in my school or district.*

Most teachers, **98%** or N=47 respondents Agreed or Strongly Agreed that they *plan to return to EBRPD parks with their class next school year*, and **92%** (N=44) said they would return to EBRPD parks *on their own* in the future, showing that KHOC continues to be successful in engaging teachers to spend more time outdoors.

Most, or **98%**, of survey respondents Agreed or Strongly Agreed they would *recommend KHOC to another teacher*. Finally, **96%** (N=46) of the survey respondents agreed they *would participate in KHOC again*, and **80%** Strongly Agreed with this statement. In fact, the only teacher who Disagreed indicated that she would be retiring at the end of this school year.

4. EBRPD naturalist involvement with KHOC classrooms.

During its first two years, KHOC was framed exclusively as a teacher-led activity, but based on teacher requests, teachers can now apply for naturalists to help guide their KHOC field trips, along with other teachers throughout EBRPD. These applications are due by early December.

However, with limited staff availability and high demand, naturalists are not guaranteed for KHOC trips. Naturalist “slots” are filled according to staff availability the day field trips are scheduled. KHOC teachers *do not have scheduling priority* over other teachers, and every year, some teachers are turned away. (This is also why promoting the self-guided trips has become such an important focus of KHOC).

I've been participating in this program for the past four years and I've had super awesome Naturalists guiding our fieldtrips. They are positive and excited about working with our students. I have to say that at Crab Cove, this year, seemed the most structured and engaging for our students. Because it was so structured, students had the ability to do so many more activities. I've never had so many kids wanting the address so they can return.

~A KHOC Teacher

In our educator survey, 49 teachers responded to the question about whether they submitted a request to have an EBRPD naturalist help guide their class's KHOC park trip, and 90% (N=44) had done so. Of these, 86% (N=38) *received* a naturalist-guided program as part of the park trip.

Of seven who had *not*, five indicated that scheduling difficulties with EBRPD (or with bus companies) had played a role. Remarkd one teacher, “*We tried to find a date that was available, but for some reason, these dates filled up that same day. It was frustrating, because after all the emails back and forth, even with lots of flexibility with days, we were not able to get a naturalist.*”

Another said, “*I would have loved to have gone on that field trip that was scheduled to Coyote Hills, however, we had difficulty securing a bus in our district... Therefore, I had to cancel that field trip and rescheduled on another day where we went on a self-guided tour.*”

Despite this, EBRPD makes the effort to make this experience available, and as in past years, most teachers were *very enthusiastic* about naturalist involvement:

- *The naturalist program enhanced the hands on learning of students tenfold. We would not have been able to experience putting hay in a barn or milling corn and feeding animals without it.*
- *He did an awesome job of managing the students and keeping them engaged. They learned a lot ... and took it back with them into the classroom.*
- *Our Naturalist was very patient and kind. It was great to have another person teaching my students about the content we had discussed to get new information or have it presented in a different way.*
- *The naturalists were very informative and able to really connect to the learning that we have been doing with the KHOC lessons and our current social studies/science curriculum.*

On our trip to Crab Cove my students did not want to leave. They were very excited about all the activities that were set up and being able to explore the area.

~A KHOC Teacher

There were a few pieces of feedback on the naturalist program, including:

- *I really appreciated the work that the rangers did with us! However, I think that some of the stuff went over some of my students heads a little. It would be helpful if they could communicate with us in advance what park specific activities they have planned - that we could specifically prepare our kids.*
- *It was a shame that we were unable to see more of the mines. I wish that had been ... noted to teachers before I signed up for the park.*
- *For those of us who can get to a park but who are unable to reserve a naturalist, it really would be great to have a naturalist-led video that we could preview if we do it alone. It would also be helpful to have a booklet of flora and fauna that we might expect to see.*
- *If teachers are attending the orientation/training, then it would be appreciated if these programs could be available for these same teachers and their classes. We were not able to get a bus or a naturalist when we applied.*
- *The Black Diamond Mines is one of the areas where a naturalist is really required.*

Most respondents (**94%**) indicated they would request a naturalist as part of KHOC in the future, underscoring the popularity of this part of the program. (The remainder responded “I don’t know.”)

5. Self-Guided Trip Options.

As noted in Section II, the KHOC orientation in fall 2016 included training on “self-guided” trip options with materials and activity kits for teachers to lead their own trips. Even prior KHOC participants were asked to attend orientation on these materials so that more teachers would learn how to start leading their own park activities in the future, independent of naturalists.

EBRPD hopes that this option will support teachers in building skills and confidence teaching outdoors. And because *KHOC will limit participation to three years starting next year*, having the self-guided experience will help teachers lead their own trips in the future.

The kits are available at four EBRPD parks: Redwood Regional Park in Oakland, Garin Regional Park in Hayward, Martinez Regional Shoreline in Martinez and Shadow Cliffs Regional Recreation Area in Pleasanton. They can be checked out at Visitor Centers, and include everything from guides to binoculars for bird watching.

These parks were selected for their accessibility, program opportunities, and facilities that support class trips. They are geographically spread out across the East Bay.

About **20%** of survey respondents (N=10) indicated that they used these materials this year, the majority at Garin. One enterprising teacher used kits at *several* of the parks:



I used the Redwood Regional Park kit. EXCELLENT Materials. The pictures really helped guide me through the forest and it gave an excellent history lesson on logging in the area as well as the ecosystem. I wouldn't necessarily include so many clipboards in the kit. They were quite heavy to go hiking with. I guess I could have given each child their own to hike with, but they are only used for about 10-15 minutes for their leaf rubbings. If you created a booklet where kids are required to draw more (e.g. draw the fairy ring, look at the bark texture, draw tree rings, draw the canopy, leaf litter, understory, write down what they notice), then I would pass out all the clipboards and pencils and magnifying glasses right at the beginning of the hike and they could use that to go around with. I really enjoyed using the Garin park kit at the orientation. Therefore I borrowed it for my trip to Coyote Hills. While I know the kit is for Garin Park, I wanted my students to have the opportunity to use the binoculars and the pond water magnifying glasses on the hike. I brought my tiny compasses from school and that just made it great for use to try out being field scientists.

The materials were praised by almost all teachers who used them:

- *Having the kits available and knowing the activities that went along with it gave me more confidence to have an outdoor field trip. Having gone through with the activities during the Orientation day really made it more fun for me and the kids (I was organized).*
- *There was a comfort level with reviewing the KHOC bags and understanding what it would take to get them out into nature. The books were really helpful in talking about what some of the parks had. The orientation made me feel better about trying out some things with my class, like collecting pond water, using magnifying glasses, etc., trying out binoculars.*
- *Everything was in great condition and very easy to bring out to the group in a big wagon.*

In addition to a request for booklets (above), teacher suggestions for improvements included:

- *I suggest listing how many materials are present...makes it easier when collecting them.*
- *Maybe getting copies (via email) of the supplies inventory and lessons for them beforehand would've been helpful.*
- *They were all really fun and engaging for the kids, especially the bird identification with the binoculars. The water kit wasn't too successful since they had a hard time catching critters from the water.*
- *Another colleague had trouble returning the activity/materials bag, drove all the way to Coyote Hills in commute traffic, and no one was there to receive it when she arrived, although she was instructed to bring it back at the time she did. It is a nice program but kinks like this really need to be resolved.*
- *When I was trying to find the Garin KHOC bag, I called the Garin number and they had no idea what I was talking about. Also, when I went to Crab Cove, they were unsure of where the bag was for the Oakland Redwood regional parks bag. However, they were willing to search for it and they found it.*

*Having time to talk with other teachers at the beginning of the year and using the KHOC duffle bag kits made the outdoor experience great.
~A KHOC Teacher*

Although there is a definite uptick in the number of teachers using the self-guided materials now, it may help to smooth out some of the kit distribution processes, making sure teachers know where they are available. The self-guided kits can be *promoted once more in next year's teacher orientation, perhaps by recruiting previous participants to speak about their experiences using them.*

6. Helping teachers learn about EBRPD resources.

Each year, EBRPD hopes that teachers will learn about park district resources (i.e., free or low-cost recreational opportunities, educational tools, mobile exhibits, health resources and programs) that they can use in their classrooms, and **39%** (N=19) of survey respondents this year felt that they did. Resources mentioned included the following:

- *We had a presenter come in and talk about the least tern. We found out that EBRPD has an opportunity to see them in June. I also found out about the Trails Challenge.*
- *I learned about another opportunity to get discounts for bus transportation for field trips.*
- *Not this year, but I remember having the Ohlone group come to our school and provide a wonderful field trip at our school. It was marvelous.*
- *The vans that will visit the school site.*
- *The resources available for the Martinez shoreline. I wish I had remembered about the Ohlone curriculum.*

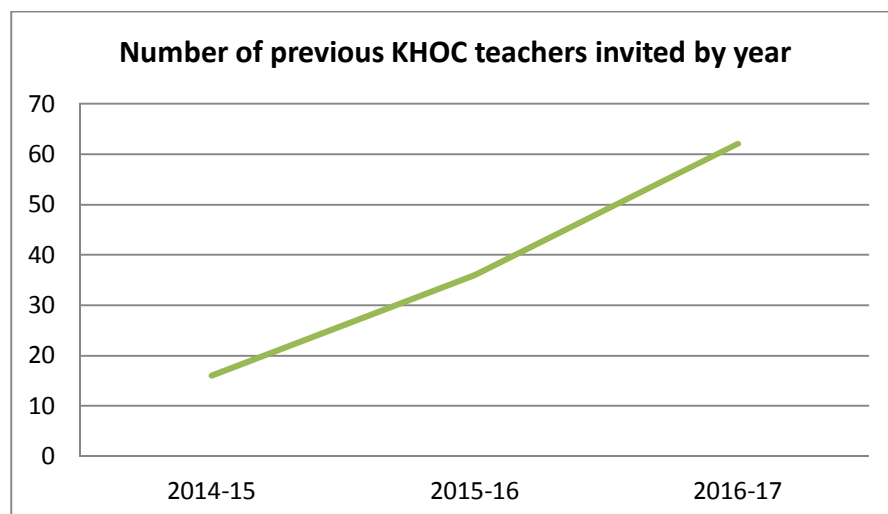
7. Impact of Repeat KHOC Teachers.

For several years, KHOC has had funding to invite an increasing number of teachers who had previously participated in KHOC to repeat the program. Overall, **62** previous participants were invited to repeat KHOC (46% of invited teachers) again this year.

I have no trouble now, taking a leadership role for these field trips, and also helping my colleagues plan for them.

~A KHOC Teacher

Note: In school year 2017-18, KHOC will officially limit the number of years of participation to three, and encourage these experienced teachers to begin guiding their own trips to the East Bay Parks.



In addition, **20** survey respondents were prior participants (**35%**). To determine the impact of these teachers on their colleagues, we asked if they were able to *help guide, mentor or provide resources to new KHOC teachers*; **60%** of these previous participants had done so, in the following ways:

- *I talked shared and gave advice to other teachers at another elementary school in our district. We talked about places to visit and what to do there.*
- *We had a new teacher join our grade level. I attended the training with her and provided all the lessons we use and how we modify them so we can share them during Open House.*
- *The application process, how to prepare for the trips (managing classes).*
- *I was able to give insight about particular lessons and parks to visit. I was able to help with getting a naturalist and bus.*
- *At the orientation, I spoke to fellow teachers in my district about suggested trips to take.*

The number of repeat KHOC teachers is increasing every year, suggesting that the program is deepening and broadening its foothold in schools with every passing year. The focus going forward will be to help teachers deliver the program independently of EBRPD.

Teachers say KHOC is having an impact on *families* too!

- *Students have been sharing about adventures they have recently had with their own families to Big Break. Our class is planning to have a "reunion" this summer and meet at the 2nd Sunday camp fires at Big Break.*
- *A parent was excited to go on these field trips to Coyote Hills and Redwood Regional Parks because even though she had lived here all her life, she had never been to an East Bay Regional Park. She really enjoyed Coyote Hills and I heard afterwards from my student, that their family returned to Coyote Hills on Mother's Day.*
- *Parents were excited and enjoyed the trip as a lot of them did not know about the Ohlone culture.*
- *I had a student who is in 7th grade now come back to me with his dad and told me that because of our field trip to Garin Park they go to EBRPD all the time. They never did before.*
- *I had a few parents ask me for the address to Crab Cove because their kids went home and told them how much fun they had and how they wanted to return to Crab Cove.*
- *A couple of students went back to the park on the Saturday after our field trip.*
- *They mentioned wanting to go the parks again on multiple occasions. Some even told me of trips they took with their families to those parks after our field trips were over.*
- *After learning about our field trip to Black Diamond Mines, two of the families in my room took their own weekend field trip to the mines. Those students shared the experience with the others in my classroom.*
- *They didn't realize that Crab Cove had a beach and was close to where they live.*
- *The children wanted to take the brochures offered at the Visitor's Centers Home. I followed up with parents after each trip.*
- *Some kids have already told me they returned to both parks with their families :)*

VII. Teacher Feedback on Project Processes

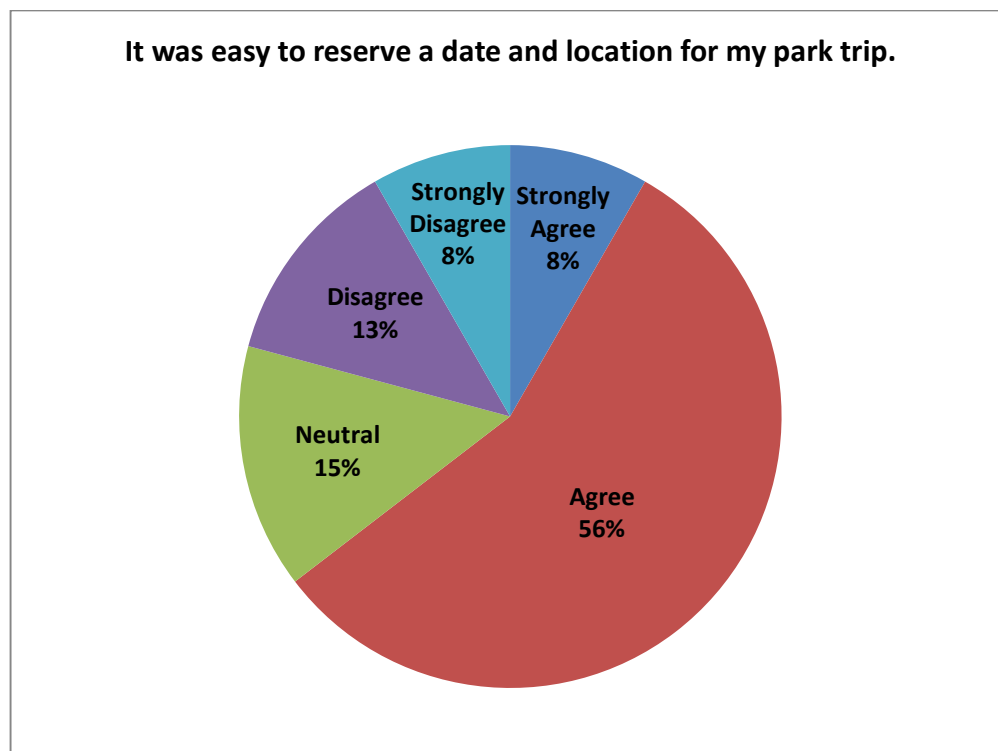
The survey solicited teacher feedback on project processes (e.g., the KHOC website, teacher orientation, park trips, etc.). Many teachers expressed satisfaction with processes, but several areas continue to present challenges, including class park trip planning and transportation.

Park Trips: Park trip scheduling has been one of the most challenging aspects of KHOC since program inception. But as noted in Section II, EBRPD experienced even more significant transportation challenges this year, related to ordering buses for class trips. This is partly due to increasing competition for buses, with technology companies paying top dollar for commuter transportation for their employees. There are a limited number of bus companies to meet growing demand. In addition, one of the district's contract bus companies proved to be unreliable, completely missing a scheduled pick-up.

Due to these challenges, there were times this year when a KHOC teacher booked a trip on a certain date, and EBRPD could not find a bus for that date. As an alternative, EBRPD asked some KHOC teachers to go through their own district channels to book a bus, and then reimbursed the district for that cost.

In the survey, EBRPD broke feedback down into two questions, one about the *planning the park trip* (i.e., factors that KHOC had more control over), and a second about *obtaining bus transportation*.

First, we asked teachers if it was *easy to reserve a date and location for the park trip* (e.g., use the KHOC reservation form, choose a park, schedule a date at the park, etc.). While **65%** (N=31) Agreed or Strongly Agreed that it was easy, **21%** (N=10) did *not* find it easy.



Comments included the following:

- *It was hard because it seemed like it was a very confusing process. We didn't know if our request went through. In the future, please send a copy of responses to the teacher so they know what they requested.*
- *The process of doing it was not difficult, but it was challenging to secure a date. There were obviously lots of other schools also trying to book a date, so we had to give many options until we were confirmed a field trip date.*
- *The first date selected and agreed upon for Big Break had to be rescheduled due to bus not available for that date. Perhaps confirming transportation when accepting date would be more efficient.*
- *It worked better for me to schedule our bus in our district and THEN get the date at Coyote Hills. Parks Express subsidized our trip to Oakland Redwood Regional, but that was because I changed it from Coyote Hills. We ended up going to Coyote Hills using different funds, but by that point, I lost my naturalist appointment.*
- *I think it would be better if we could get first the bus. I had to cancel with the park twice because the bus couldn't make it on that day. It was a little complicated. If we could book the date with the bus first it would be easier to know for sure the date we could go to the park.*

Using *technology to help with scheduling* was also proposed as a scheduling solution:

- *Use Doodle or other scheduling apps to sign up for a date and location.*
- *Have all of the sign-ups first come, first serve and have all the teachers who attend the Saturday session get first pick or do a Survey Monkey to figure out which dates work best for which school sites. Google Calendar could also help, because the bus transportation situation was convoluted ... I think that there has to be some way to sort it out so that it is not the type of "hurry up and wait" situation that it turned out to be. It was also hard to find out which buses were provided to not Title I schools and which website form to use if you still wanted transportation with or without the naturalist lead because there was one form for Title I transportation requests and another one altogether for teachers who attended because they went to the training.*

Second, regarding ***ease of bus reservations***, **78%** of respondents (N=36) reserved the bus directly through EBRPD and KHOC, while **22%** (N=10) did not.

Of the 10 respondents who did not order their bus through EBRPD, eight (80%) ordered it through their district and were reimbursed, one relied on public transportation, and one did not receive a bus at all.

Of those (N=36) who used the EBRPD reservation system, **69%** said it was easy to reserve the bus, and **31%** said it was not easy. Comments on this process included:

- *So much miscommunication! Made it very frustrating...reserving buses / payment...one class got to the park and were told they didn't have payment.*
- *I had an easy time reserving my bus for our trip, but I know my colleague did not. We were told to reserve through KHOC, not realizing they would be using our school buses anyhow. Also, payment for the naturalist program was not clear. At Ardenwood I did not realize payment wasn't taken care of until we were already there. I had sent a letter as requested for a discount for our title one school but it was never received, then the fax machine at Ardenwood was down so payment was not being sent although we tried.*
- *They (the bus) didn't show up for our 2nd field trip.*
- *We had to use a separate form and field phone calls during school hours to clarify which website and form to use to request the bus subsidy since we are not a Title I school but still can benefit from transportation costs of \$1,000+ being covered to visit our local East Bay Regional Parks. In the end, it all worked out but it was rather confusing. ;-)*
- *I was unaware that we would still need to do the transportation request form for the Liberty Union buses even though we were not making a request to them directly.*
- *Reserving the park and date was one form then we had to wait until we had that reserved to reserve the bus with a different department and form. The confirmation for the bus came much later and when the bus was late, getting ahold of someone to speak with was challenging.*
- *At first, no bus was available for our classes after multiple calls and emails. Later, I tried again in May and was able to find a bus that someone had cancelled. It was very lucky.*

Ideas for improving scheduling and transportation systems are explored in Section VIII.

Teacher Orientation: As noted, EBRPD asked all teachers to attend an orientation in the fall, even if they had participated in KHOC before. This was to train teachers on new self-guided trip options at four parks.

Most (**83%**) of respondents Agreed or Strongly Agreed with the statement, *the teacher orientation in fall 2016 prepared me to implement KHOC in my classroom.*

Getting a chance to look at the lessons at the training made it easier to implement with my own students, and to adapt it to our needs.

~A KHOC Teacher

However, **6%** of respondents (N=3) *did not agree* that the orientation prepared them to implement KHOC. A few comments were from previous KHOC participants who did not feel they learned enough to make attending the orientation worth their while:

- *Our grade level already participated in the program so going to the orientation wasn't necessary. We went to the one in Berkeley and although they were very nice, it wasn't as organized as it could've been. The information presented could've easily been emailed to those who have previously experienced the program.*
- *As a returning KHOC teacher I did not learn anything new at the orientation and felt it was unnecessary.*

And one participant, along with the one noncompleter teacher who took a survey, indicated that it was a burden to ask teachers to take an unpaid training. It is unclear whether some teachers are getting the message that KHOC participation is mandatory, or if schools are requiring participation in order to get free park trips. From EBRPD’s perspective, KHOC is a *completely voluntary* program. Please see section VIII for ideas to clear up this misconception.

KHOC Website and Facebook Page: KHOC has maintained a website for several years, and this year, added a Facebook page for teachers to interact with naturalists and each other. In the survey, teachers were asked if they had *visited the KHOC website and/or the KHOC Facebook page for information about the program.*

Two thirds (**66%**) had used one or both of these sites, although overall, only three survey respondents indicated they had used the Facebook page. One third (**34%**) did not use either site.

KHOC Website	60%
KHOC Facebook page	2%
Both Website and Facebook page	4%
Neither	34%

These teachers were asked for suggestions to improve the website, and key ideas included:

- *Streamline the links on the main page into larger categories and use pictures to help guide the site visitor. Then separate the questionnaires and forms with flow chart type questioning on the application. For example, [Are you a Title I school? Do you have more than 30% Free and Reduced Lunch, if not skip to question 4 or click on the link entitled "Trips for Non-Title I schools"]*
- *It was really hard to pick the park and learn about events. The website to me is not very user friendly.*
- *I needed to refer back to our workshop information to get the correct website for the KHOC. It was harder to navigate to it from the EBRPD homepage.*
- *Put a note on the website informing educators when the KHOC applications will be available.*

The KHOC Facebook page should be promoted (or discontinued), because several teachers remarked they didn’t know it existed, or had forgotten about.

VIII. Lessons Learned & Recommendations for the Future

EBRPD has now finished five full years of KHOC, and it is an established program in many school districts. Each year, feedback shows that the program is having an impact on the way that educators teach their third grade classes, as well as the relationship of these classes to outdoor spaces and activities. And this year, the program reached far more classrooms and students than ever before.



As we have noted throughout this report, KHOC evolves and changes each year. Teacher feedback is a critical factor in making program improvements.

This year, many outcomes were successfully reached, with teachers feeling that KHOC supports them in teaching outdoors, and students and families expressing great enthusiasm for their trips to the parks. However, with continued growth, there are some program processes that can be improved so that barriers to participation are minimized.

In this spirit, we explore **recommendations** for the upcoming school year. Changes such as these could help all teachers complete KHOC more successfully.

Project Coordination: In the upcoming KHOC year, EBRPD plans to maintain the current coordination structure in which each naturalist who leads an orientation stays in touch with (and answers questions for) that cohort during the year. However, Senior Administrative staff will take responsibility for email blasts and reminders to make sure teachers stay on top of due dates, and are continuously reminded of resources such as self-guided trips. As noted, in the coming year, teachers who have participated in in KHOC for three years or more should be asked *not to apply*.

Orientation: In the application phase this school year, it should be clarified that *orientation is a requirement* for all KHOC participants. (Prior participants may attend the shorter orientation focusing exclusively on self-guided trip options.) Sufficient warning during the application process could prevent disappointment among any teachers who feel attending an additional training is a burden.

It should also be continuously stressed that KHOC is an *entirely voluntary* program, and that the orientation will help teachers deliver the curriculum, learn from each other, and gain valuable skills for conducting park trips *on their own*. EBRPD could also recruit teachers who took self-guided trips this year to share their experiences with others during orientation.

Naturalist Involvement: Although KHOC teachers can apply to have a naturalist help lead their park trip, demand for naturalist programs far outpaces EBRPD capacity, and therefore, KHOC teachers cannot be assured priority for naturalists. Self-guided trip options are now a focus of orientation so that teachers have alternatives to naturalist-led programs. This is particularly important given that EBRPD plans to limit KHOC participation to three years as of school year 2017-18.

The fact that *naturalist involvement is not guaranteed* needs to be made very clear during the application process and orientation.

There were also complaints about the process of scheduling a naturalist, particularly the current process which requires requesting a bus and a naturalist separately. EBRPD is working on a Universal Program/Parks Express application that will allow teachers to request both transportation and a naturalist *at the same time*. EBRPD is currently soliciting bids for custom software development, and hopes that this application will “go live” by school year 2018-19, minimizing future problems. For the upcoming 2017-18 school year, teachers will be asked to request the naturalist program first, and then the bus request will be forwarded to EBRPD Parks Express. If there is any difficulty obtaining a bus through EBRPD, all teachers will be advised that they can book one through their own district channels and receive reimbursement from KHOC.

Park Trip Improvements: The process for requesting buses for park trips, and scheduling trips, has consistently been the most confusing part of KHOC for teachers, and this year, it was more difficult than ever due to transportation issues outlined in Section VII.

For the coming year, EBRPD is seeking to minimize use of bus companies that are not consistently reliable. Secondly, as noted, there are currently separate forms online for requesting a naturalist and for requesting transportation. By 2018-19, these two requests will be combined into a Universal on-line request form, simplifying trip planning.

I really enjoy KHOC and doing the lessons. I feel this is so important to get our kids away from the hook of technology and back out into nature and our local parks.
~A KHOC teacher

EBRPD does not expect competition for buses in the East Bay to significantly improve this year, so will continuously remind teachers that, in some cases, it could be quicker to book a school district bus for their trip, with reimbursement provided by KHOC.

As always, these challenges and processes need to be explained repeatedly during teacher orientation, and through email blasts throughout the year. They should also be clearly posted on the KHOC website, along with processes for requesting reimbursement for transportation costs.

Self-Guided Trips: As noted, in school year 2017-18, KHOC will institute a *new rule limiting a teacher’s KHOC participation to three years total*. In the first year, they will receive their introduction to the program and self-guided options. In the second, they should develop their skills and activities, and in the third year, perfect their outdoor teaching skills by exploring the self-guided options.

After this, we hope that teachers will have the skills to continue using the Regional Parks and self-guided materials on their own. This goal makes promoting self-guided trips especially important this year.

As noted, grant-funded “Teacher Kits” are available to support self-guided trips at four parks. They are available for teachers to check out at Visitor Centers. There are several *self-guided trip processes that should be improved* this year in order to encourage teachers to use these materials:

- Implement a clear system for inventorying items in the kits.
- Send out continuous email blasts about the kits, and exactly where they can be picked up (there was confusion about this during the school year, particularly at Garin).
- Train all Visitor Center staff to locate the kits upon request.
- One teacher suggested posting a naturalist video on the KHOC website to help teachers use the kits, and provide the self-guided trips.

Promoting self-guided trips will conserve naturalist time for less experienced teachers, and reinforce one of KHOC's goals: *to build teacher's skills and confidence teaching their students outdoors.*

The KHOC Website & Social Media: This year, only two thirds of respondents indicated they had turned to the KHOC website (or Facebook) page for information. For the coming year:

- The teacher orientation should focus more on information and resources available on-line.
- Teachers should be reminded about these resources throughout the year.
- The website should be updated regularly with project deadlines and expectations.
- The KHOC website url should be simplified and parts of the website should be updated/streamlined, especially with regard to instructions for participants.
- With very few members, the Facebook page may be discontinued.

I didn't know about this park, I'm coming back here with my family this weekend!

~A KHOC student

KHOC Materials and Alignment with Curriculum Standards: As discussed in Section V.2, KHOC works best when the curriculum aligns with up-to-date curriculum standards, and when teachers have the chance to make suggestions for its improvement. KHOC staff should pay close attention to the plan for rolling out Next Generation Science Standards (NGSS) in the next year. A revision of the KHOC curriculum

should be scheduled for summer 2018. Throughout school year 2017-18, teachers should be encouraged to share their specific recommendations for improving alignment with NGSS.

KHOC Translations into Different languages: Based on teacher feedback, KHOC should pursue a Spanish-language translation of the student KHOC booklet for school year 2018-19.

Goals and Participation Targets for Next Year: EBRPD looks forward to the coming school year, and plans to invite a similar number of classrooms to participate in KHOC in 2017-18. EBRPD is excited about deepening the growing impact of KHOC by helping teachers learn to independently lead nature experiences for their students in the future.

EBRPD will continue to listen to teachers, students and families as they tell us what is needed to broaden and deepen their commitment to outdoors education, improving health and well-being in our communities.



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The Regional Parks Foundation

Kaiser Permanente

The San Francisco Foundation

Tesoro Foundation

Alameda County Fish and Game Advisory Committee

Contra Costa County Fish and Wildlife Commission

The Snyder Family Foundation

And for support and inspiration from:



**Kids Healthy Outdoors Challenge (KHOC)
2016-2017 School Year**

ADDENDUM: KHOC Student Artwork

Some teachers gave their students a survey at the end of the school year, asking them to write or draw what they remembered from their EBRPD park trip. Each year, we receive some wonderful student artwork, such as these contributions from students at Sun Terrace Elementary School in Concord.



I remembered about the shrimp
poop, now That was disgusting



when we got to see frog in the pond.



I learned about miners.
It was very cool.



one thing I remember from the
field trip was when we went
hiking