



Kids Healthy Outdoors Challenge (KHOC)

Educator Survey: 2014–2015 School Year Report



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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“There is lots of stuff out there!” —Student at Murphy Elementary School

All artwork by KHOC students from Downer and Jefferson Elementary schools

I. Executive Summary

Purpose of the Pilot Project: In school year 2014-15, EBRPD conducted the third 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 first designed and implemented in 2012 with a goal of promoting outdoor education while also supporting third grade curriculum content standards, including the new Common Core Standards which have now been implemented in most 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 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 of parks and nature 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 to parks. KHOC is an exciting program that empowers teachers and students to take their classroom outside.

A lot of our students have never been boating, camping or swimming. It really showed the divide between the haves and have nots.

~A KHOC teacher

KHOC is comprised of ten outdoor education lessons that are 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 such as exploring nature, learning to follow a trail, and learning to swim and bike.

About half of the lessons 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 the classroom. 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 is asked to complete at least three of the ten lessons in the KHOC booklet with their class, and to go on one class trip to an EBRPD park. They also submit an activity log documenting their lessons. 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.

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

- 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 Conduct of the Project: School year 2014-15 marked the first year that the opportunity to participate in KHOC was given to all teachers who applied, representing a significant expansion of activities. Increased funding due to the increasing popularity of the program helped make this expansion possible.

Last school year (2013-14), just 32 classrooms from 18 public schools in Alameda and Contra Costa Counties were initially selected to participate. In 2014–2015, the number of teachers selected (and who attended a KHOC orientation in Fall 2014) increased to **63**, representing **22** public schools.

Because the cohort of teachers nearly doubled in size, the EBRPD Interpretive Services Department assigned three staff naturalists each to lead one teacher orientation, and then to be the point of contact with all the teachers participating in their training cohort. This resulted in some decentralization of the program; prior to this, there had been one point of contact communicating with teachers and collecting activity logs.

There were also other key changes. For example, in the past, KHOC had been framed exclusively as a teacher-led activity. In Fall 2014, EBRPD implemented a new application process to enhance the role of EBRPD naturalists on some school park trips. Teachers were encouraged to apply for naturalists to guide their KHOC field trips, and naturalist “slots” were filled according to staff availability the day field trips were scheduled. Overall, about 65 classrooms had a naturalist program on their park trips. (This included classes who took more than one park trip, as well as those that invited other classes at their school to come on the trip.)

This program rounds out the science and social studies curriculum for Common Core. The focus on nonfiction materials has also been helpful for my students.

~A KHOC teacher

In addition, the program schedule was adjusted to provide more lead time for trip scheduling. Teachers were asked to complete the three KHOC lessons and to submit their activity log (summarizing activities completed and numbers of students participating) by early March, *before* submitting their transportation request. They were also asked to schedule and complete their park trip by May 15, as in prior years.

Finally, school year 2014-15 was the first full school year in which most schools fully implemented the new Common Core curriculum standards. KHOC had been designed taking this curriculum into account, but at the time of design (2012), Common Core had *not* been implemented by any school.

School Year 2014-15 KHOC Participants: In Fall 2014, 63 teachers representing 22 public schools (and 11 school districts) from across Alameda and Contra Costa Counties were invited to participate in KHOC, and teachers from all of these schools attended a KHOC orientation held in October and November.

With the number of classrooms nearly doubling from the previous year, **two thirds (N=42)** completed the project successfully, but unfortunately there was an attrition rate of one third, with **21 teachers (33%)** not submitting the activity log (so that they could not request a field trip). This was an increase from a 9% non-completion rate in 2013-14, and comparable to the 30% non-completion rate in Year 1 (when teachers could request and take a park trip before completing their KHOC activity logs).

These 21 teachers are referred to as “non-completers” in this report, and in Section II, we outline some of the reasons for their attrition from the program.

To determine whether project outcomes were met and to gain valuable program feedback, all **42 KHOC “completers”** (those teachers who submitted an activity log, and were eligible to request a park trip) were asked to complete an Educator Survey in June 2015; **28** of these teachers (**67%**) completed the survey.

Participating students in the 42 classes that completed KHOC were **highly diverse**, approximately 42% Latino/a, 14% African American, 19% Asian, 15% Caucasian, 2% Pacific Islander, about 1% Native American and 7% Other/Multi-racial. Participating schools had rates of Free and Reduced Price Lunch (indicating poverty) ranging from 10% to 100%, with an average rate of **62%** qualifying for Free and Reduced Price Lunch. Average class size was **24** children.

According to activity logs, approximately **1,010 students** completed three KHOC lessons from the booklet. Overall, there were about **2,100** passengers on park trips during the school year. This includes classes who took more than one trip, teachers, parents and chaperones, etc.

Although we did not receive classroom size for non-completing classrooms, we estimate the number of students in these classes to be about 500. We were able to learn that some of these classrooms used portions of the curriculum, and may also have had some benefits from the program (although non-completer teachers were difficult to reach, and did not participate in a written survey).

Summary of Survey Results: Ninety three percent (**93%**) of survey respondents indicated that they were able to fully complete the project—that is, complete at least three of ten (10) lessons *and* take a trip to an EBRPD park. Two teachers (**7%**) completed all lessons but were unable to take a park trip.



One of the major goals of KHOC is to increase educator comfort and skills teaching outdoors. For the third year in a row, teachers indicate that it helps meet this goal: **79%** Agreed or Strongly Agreed that KHOC increased their *comfort* with leading classroom activities outdoors; **79%** Agreed or Strongly 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, particularly given that all participating schools had switched to Common Core; **59%** Agreed or Strongly Agreed that KHOC helped them to meet new curriculum standards, while **41%** were Neutral on this question.

Teachers who felt supported by the curriculum cited Science/Life Science (94%); PE, Social Science and English Language Arts (50% each); and Reading (44%), as the standards most supported by KHOC.

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:

- **96%** of respondents Agreed or Strongly Agreed that participating in *KHOC made their class want to spend more time being active outdoors.*
- **85%** Agreed or Strongly Agreed they spent *more time teaching outdoors* this school year than they did the last school year.

Moreover, **54%** 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.

It encouraged me to take my class outside. Once outside, we were inspired by so many things around us. This increased my students' motivation and interest, and we were all excited to discover together.

~A KHOC Teacher

Most importantly this year, **100%** of 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 V of this report details their suggestions (e.g., more clarity in scheduling park trips, improvements in the KHOC website and teacher orientation, etc.). Teachers also made suggestions for changes

to the KHOC curriculum. If resources allow, incorporating some of these changes, and editing and re-printing the KHOC curriculum is recommended before school year 2015-16.

Comparison of 2014-15 Cohort to Previous Cohorts: In Chapter VI of this report, we explore differences in this year's survey responses to the two previous KHOC years. Generally, results are similar, and teachers continue to have a very positive response to the project.

However, comparing results across cohorts is complicated this year by the fact that a new state curriculum has been instituted, and because survey respondents this year included only program "completers." This was not true in previous years. Moreover, with small sample sizes, differences noted are not statistically significant.

In conclusion, EBRPD continues to feel very encouraged by these KHOC findings, and is committed to continuing to expand outdoor education opportunities 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 schools. Results are included as Exhibit A.

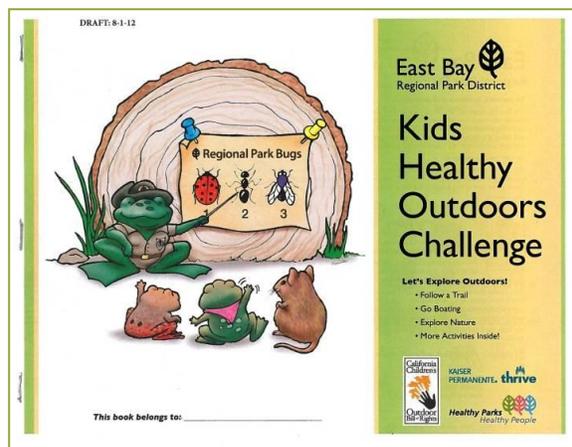
II. 2014-15 Program Changes and Participant Attrition

The third year of KHOC saw major changes in the conduct of the program, including its size.

In the two prior years, only about 30 classrooms were initially selected to participate, and all activities were conducted by a single staff naturalist, who was responsible for coordinating all aspects of the program.

In school year 2014-2015, invitations to participate were extended to **63 classrooms**, and to accommodate this expansion, the EBRPD

Interpretive Services Department assigned two additional naturalists to help the KHOC Coordinator. All three staff naturalists (each working at a different EBRPD location) led one teacher orientation, and then served as the point of contact for teachers participating in their training cohort.



This resulted in some decentralization of the program. Prior to this, there had been just one point of contact, communicating with and orienting teachers, and collecting evaluation materials like the activity log. In addition, only one of the three new naturalist leaders had KHOC experience in previous years. It is possible that this decentralization resulted in some evaluation materials being lost; several teacher activity logs that had been submitted were misplaced at the end of the school year.

As in school year 2013-14, all teachers were asked to attend a three hour orientation in Fall 2014 (held during the evening or on a Saturday). They were also asked to complete three KHOC lessons with their class and to submit the log of their activities by a new, earlier date of March 1, 2015. This log had to be submitted before a bus from EBRPD's Parks Express could be confirmed the deadline was set earlier this year to allow the EBRPD transportation department more time to schedule the increasing number of trips.²

In addition, in the past, KHOC had been framed exclusively as a teacher-led activity. But based on teacher feedback from prior years, in Fall 2014, EBRPD instituted a new application process to make EBRPD naturalist programs available to KHOC teachers on some school park trips. Teachers were informed about the application process and provided the information to apply for a naturalist-guided program for their park trips by the regular deadline of December 7, 2014. Naturalist "slots" were filled according to staff availability the day field trips were scheduled. Overall, about 65 classes took park trips

² The decision to have teachers submit logs before they were eligible for a trip was implemented in Year 2.

that included a naturalist program during the year (including classes with multiple trips, and some non KHOC classes).

Along with these many changes, the program saw an *increase in teacher attrition* or program “non-completion”: **21** of the 63 teachers (**33%**) never submitted their activity log and were deemed “non-completers.” The program non-completion rate in 2013-14 was just 9%. This year’s attrition rate was comparable to that in Year 1 (30%) before teachers were required to complete KHOC activities and submit their activity log before requesting a bus.

Teachers tended to drop out in “teams;” that is, if one teacher from a school didn’t compete the program, it was likely their colleagues wouldn’t either. Five schools (two in Alameda County and three in Contra Costa County) saw all of their participating teachers drop from the program.

At the end of the school year, the KHOC evaluator first invited no-completer teachers to take a short, on-line survey. There were no responses to this survey, so instead, she made short phone calls to determine what may have prevented these teachers from completing the program, and what could be done to make KHOC easier to complete. She was able to reach **9 of the 21** teachers, and a few of these were also able to provide input for fellow teachers at their school.

A summary of these discussions with non-completer teachers follows.

Personal Life Events: In about 5 cases, it was clear that personal life events had contributed to attrition. One teacher went out on maternity leave; another got divorced, and there were several family deaths and illnesses that impacted program completion. One teacher in Oakland Unified School District said that teachers were in union/contract negotiations with the district between February and May, and were not allowed to work after school, so that “*things fell between the cracks.*” One of these teachers said, “*We would like to try again another year when things aren’t crazy.*”

Transportation problems in one district: All four teachers from Colonial Acres school in **San Lorenzo USD** dropped from the program, and three said they experienced significant trouble with the program timing and in scheduling buses for their trips.

Two of the four teachers at this school said they had actually completed KHOC lessons (and that students had really enjoyed them!), and had gone to EBRPD parks using their own district buses. However, they indicated that San Lorenzo USD has a very specific transportation system that is “*difficult to deal with.*” They said that this district wants to use its own buses and that they want trips booked **early** in the year.

Ideas to Decrease Attrition

- Streamline transportation processes with San Lorenzo USD.
- Consider shortening or streamlining the teacher orientation, maximize on-line training resources.
- Provide email reminders before all major program deadlines.
- Consider pushing up deadlines, i.e., for naturalist requests or for teacher activity logs.
- Look for ways to decrease paperwork burden on teachers.

Thus, the requirement that three KHOC lessons be completed before a trip was requested (usually after March 1) was problematic. At that point, one teacher said it was too late for her to get a bus. Two other teachers at that school became overwhelmed with the KHOC paperwork requirements, and were not able to request a bus in time. Colonial Acres teachers are interested in doing the program in the future. However, to make participation easier, it is clear that *transportation issues with San Lorenzo USD need trouble-shooting.*³

Teacher Orientation: The requirement to attend a three hour KHOC orientation in the fall was cited as a deterrent by a several teachers. One indicated that she had a baby; having the orientation at night or on the weekend was impossible for her. She said that she would prefer it be held during a school day when she could take a training day and schedule a substitute teacher.

Another teacher said a three hour orientation was too overwhelming, and that “*maybe one hour would be better.*” A teacher in another district said that the school day doesn’t stop at 3PM and they don’t have time after school for orientation most days. However, she disagreed with having orientations during the school day, saying it took her three hours to prep for a substitute. She suggested that instead of an orientation, “*Maybe some kind of orientation packet, and trust us to know what to do with it. We figure stuff out all the time.*”

Common Core: For two teachers, the introduction of the Common Core curriculum, used for the first time in many schools in 2014-2015, was a new, confounding factor. Said one teacher, “*I was too overwhelmed to even look at it [KHOC].*” The impact of new Common Core changes should decrease in the future, and encouragingly, one teacher noted KHOC’s alignment with Common Core: “*It had a good Ohlone tie-in with curriculum. It added to what we were doing.*”

Overwhelmed with deadlines and paperwork: There were several comments about the deadlines and paperwork required to participate in KHOC. One teacher commented on the timing of the new “naturalist request” option; with the deadline coming so early in the school year she forgot and by the time she remembered it was too late. By the time [the winter] holidays approached, she felt completely behind. She suggested the naturalist request be due later because teachers often don’t think about field trips until later in the school year. She suggested **reminder emails** be sent to the teachers a week or two before key deadlines. (Although there were regular email blasts and reminders from all naturalists to their teacher cohorts, there may be ways to increase the number and timing of reminders.)

Another teacher suggested that fewer deadlines and paperwork would help overwhelmed teachers participate, adding “*In a perfect world, I’d probably love it.*”

Overall, many teachers who did not officially “complete” KHOC by submitting the activity log and going on a park trip *did* in fact use parts of the curriculum during the year, and many indicated that it was both

³ Survey results from “completer” teachers in this district also support this conclusion – see Section V.

helpful and enjoyable. Many non-completers were difficult to reach for feedback, but those who did contribute were largely positive about the program, indicating they would like to try it again another year.

Note: “Non-completer” teachers did not take the educator survey discussed in the next sections.

III. “Completer” Teachers & How They Conducted KHOC

Forty-two (42) teachers submitted KHOC activity logs in school year 2014-15 and were eligible to take a park trip. These were deemed program “completers,”⁴ and all were invited to take an online year-end survey. The survey closed in June 2015, and was ultimately completed by **28** of these teachers (two-thirds).

The teachers surveyed were experienced educators, having taught for an average of **18** years. The range of experience was from **3** to **33** years. The average class size from the teacher activity logs was **24** students.

Ninety three percent (**93%, N=26**) of survey respondents indicated that they were able to fully complete the project—that is, complete at least three of ten (10) lessons *and* take a trip to an EBRPD park. Two teachers (**7%**) completed all lessons but were ultimately unable to take a park trip. One of these teachers remarked:

“I faxed my request and when I didn’t hear back I checked in, and it was not received. It was too late to try and schedule something.”

However, the vast majority of respondents (**82%**) indicated they had exceeded requirements, completing more than three of the lessons.

Furthermore, all respondents indicated that their school had implemented the Common Core curriculum; for **52%** of respondents, school year 2014-15 was the *first* year it was in place.



Findings from the Teacher Activity Logs: The 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 this year were *Explore Nature*, which includes lessons on animal adaptations (N=31 times taught); *Play in a Safe Place*, which includes Native American games for students to play outside (N=26 times taught); *Connect With the Past*, which focuses on Ohlone history (N=23 times taught), and *Plant a Seed* (N=21 times taught), which reinforces curriculum content about how plants grow. These were also the four most commonly taught lessons in school year 2013-14.

Teachers also quite often taught lessons associated with activities that are typically hard to conduct in the classroom (e.g., *Camp Under the Stars*—N=11 times taught). This lesson includes activities to help

⁴ Full completion of the project involved teaching three lessons, submitting the log *and* taking a park trip, but all teachers who submitted the activity log were asked to take the year-end survey.

students identify bodies in the night sky, and one teacher said of this exercise, “We had to do a pretend camping activity, because students wanted to go camping!”

It is hoped that through exercises like this teachers can create a spark for life-long learning and appreciation for the outdoors, even when students are not in school.

After submitting their logs, teachers were able to choose an EBRPD park for their trip, and of those who took their classes on park trips, the **most popular park destinations** were: Coyote Hills (21% of trips—relics at this location tie in very closely to Social Science standards); Black Diamond Mines (19%—a site with a lot of local history); Tilden Nature Area (17%—a popular park for wildlife viewing); and Crab Cove and Big Break (14% each). A smaller number of trips were also taken to destinations like Lake Chabot, Briones, Ardenwood Historic Farm, and Sunol. About **2,100 passengers took park trips** during school year 2014-15 (including KHOC classes who took multiple trips, non-KHOC classes invited to come along, and teachers/chaperones).

Many of the activities had to be modified since our school is in an urban environment. We don't even have a single blade of grass on our campus.

~A KHOC teacher

After the first year of the pilot project, EBRPD concluded that KHOC is most useful to teachers if they use the curriculum as a guide and tool for teaching outdoors, and *adapt it to make it useful* in their lesson plans. Accordingly, **34 of 42 (81%)** teachers submitting a classroom activity log indicated they had adapted one or more of the three lessons taught in their classrooms. Adaptations could include shortening lessons (as presented in the curriculum and accompanying Teacher Guide) due to limited class time, different teaching styles, or class characteristics.

Some of the interesting adaptations made this year included adding discussion, writing and reflection exercises that support the goals of the Common Core curriculum, along with on-line and technological aides to support learning:

- [In the] *Introductory Lesson*, “[I had students] pair, share, and talk about each of the activities in the Bill of Rights with a partner. They were very excited!”

For *Connect to the Past*:

- I connected it to our social studies book *Communities*. We researched online what our local community was like in the past and had our PE coach help with the games.
- I brought in some other artifacts to make it more interactive—soap root, acorns, buckeyes and an obsidian arrowhead.
- We went outside to look for natural resources that the Native Americans might have used and had a class discussion. Also talked about the elementary schools in Pinole and how they got their names.

For *World in a Box/Explore Nature* exercise:

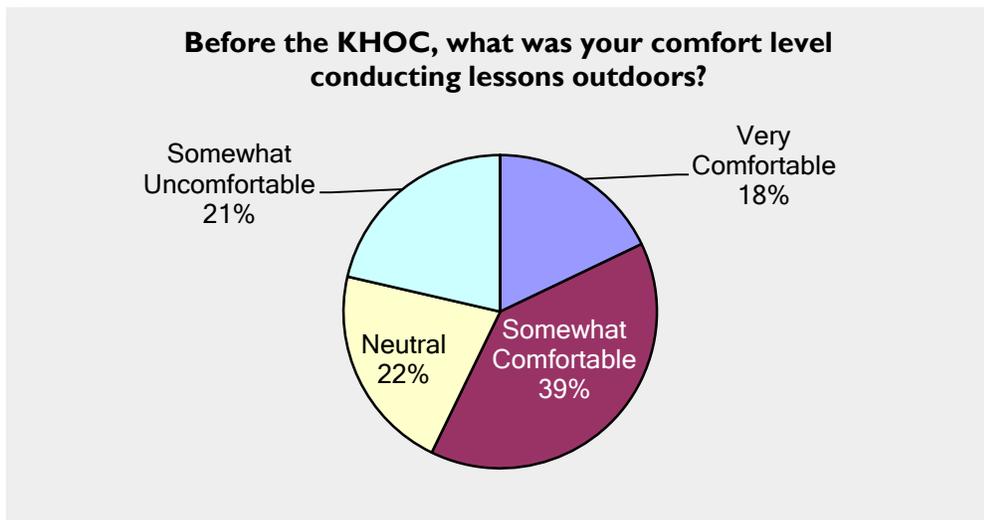
- “Made paper rectangles instead of box.” Another class used yarn to mark off boxes in their school garden; another used 4 rulers.
- One teacher added an Observation exercise before *World in a Box*. They got into pairs and had a minute to silently study their partners. “Then they turned backs to each other, and were instructed to change on thing about their appearance. They then faced each other again and determine what had changed.”
- I had them do a 10 minute journal exercise to write and document their findings and also asked them to use spelling and vocabulary words as feasible.

Other:

- I used some FOSS [Full Option Science System] materials to build prior knowledge.
- I used the LCD projector to show the class images of the lunar cycle.
- I showed the class a 4 minute video clip from YouTube to demonstrate how the lunar phases are created.
- I used videos from EdIStop [a portal to subscription-based services and free educational websites] to reinforce information about the moon and constellations. I also had students observe and sketch the moon and posted their sketches.

Teacher skill and comfort teaching outdoors: 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 (**57% or 16**) teachers had at least some level of comfort teaching classes outdoors; this was a decrease from 70% in 2013-14.

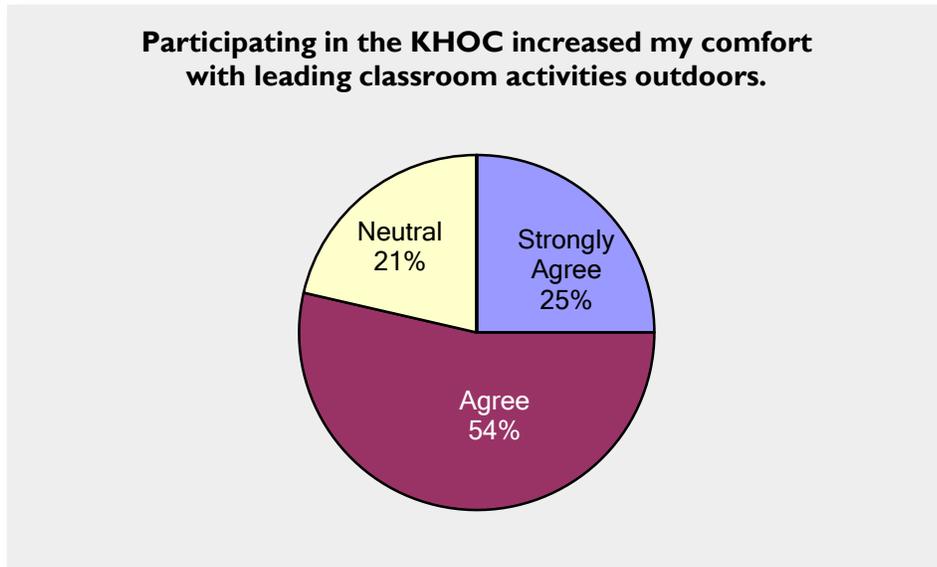
However, six teachers each (**21%**) felt Neutral or Somewhat Uncomfortable. As a result there was considerable room for KHOC to help teachers feel more comfortable teaching outdoors.



IV. Outcomes

I. Increasing Comfort and Skills Teaching Outdoors.

One of the major goals of KHOC was to increase educator comfort and skills teaching outdoors. This year, **79% (N=22)** Agreed or Strongly Agreed that KHOC increased their *comfort* with leading classroom activities outdoors:



Teacher comments that underscored growth in *comfort* included:

- Just the experience of getting out there and doing it makes me more comfortable with doing [it] again in the future.
- Having sample lessons given to me helped me feel more prepared and confident. It also allowed me to understand and expand on lessons accordingly.
- I was concerned about them not learning anything but they actually took the lessons seriously and they were very engaged!
- I was able to learn more about our local EBRPs, and could teach more about our local community.
- Having the orientation onsite at the Black Diamond Mines facility was helpful. I know what is there, what to look out for in the park and more history about the area.
- I felt much more comfortable analyzing and enjoying nature and in sharing that with the students.
- Feeling confident about getting students to pay attention to

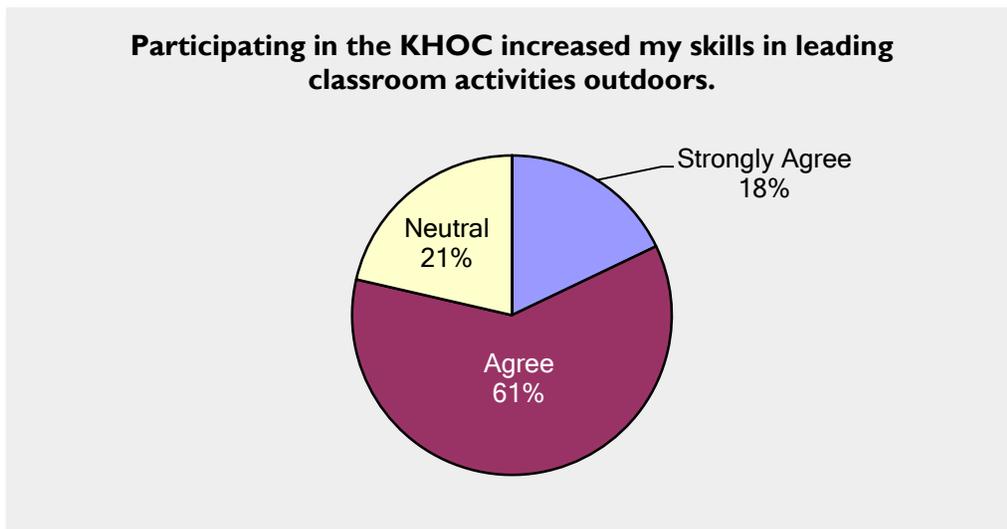
Before the program, my biggest concern was managing behavior outdoors. Now I can see that it isn't difficult to manage if lessons are well prepared.

~A KHOC Teacher

the sounds and wildlife in the outdoors. I enjoyed teaching students about trail markers and evidence of animals around us.

- Once outside, we were inspired by so many things around us. This increased my students motivation and interest and we were all excited to discover together.
- The lesson plans gave me specific instructions of how to conduct learning activities outside. That gave me the opportunity to practice outside and get better at it. There are different factors to work with than in the classroom.
- I feel I have prepared my students knowing what to look for during the field trip. I myself have a better understanding of what and how the environment on the field trip will enrich my students' academic knowledge before, during, and after the trip.

Moreover, **79% (N=22)** Agreed or Strongly Agreed that participating in the project increased their *skills* teaching outdoors:



Teacher comments underscoring growth in *skill set* included:

- Outdoor classroom management techniques increased for me.
- I have better group management strategies on how to move a big group of students and chaperones during the trip.
- Frontloading expectations, asking questions that all will be responsible to know, and being open to other learning experiences within each and every student's prior knowledge about what was seen.
- We were able to participate and complete botany activities in our school's newly renovated garden.

- Using call and response and using movement, such as animal movements, allowed me to conduct my classroom in a fun, energetic way that helped to keep students engaged.
- It was all about describing the activities while we were indoors so when we went outdoors they knew exactly what was expected of them during and after the “observation.”
- What I need to warn the kids about and what I need to think about ahead of time.
- Keep tasks short and very focused.
- Integrating classroom academics with outdoor activities offers high potential for extended learning.
- Walking quietly so as not to disturb our surroundings was important. Not taking things from nature, respecting and protecting our surroundings.

The naturalists at Sunol modeled good humor and extreme relaxation, and comfortable interaction with nature, and this helped me relax and convey this to kids.

~A KHOC Teacher

However, showing that the KHOC experience was different for everyone, others noted that classroom management could still be challenging:

- I learned new information that would help me teach. I didn’t really learn any new classroom management techniques.
- Practicing getting the class to focus while outdoors was a challenge.

Increasing skills and comfort for those originally less comfortable teaching outdoors: Of 12 respondents who indicated they were either Neutral or Uncomfortable about teaching outdoors at the start of the year (see Section II), **two-thirds** Agreed or Strongly Agreed that *Participating in KHOC increased my comfort with leading classroom activities outdoors*. The teachers who were originally Neutral on this question were more likely to report an increase in comfort: only 50% of those who were originally Somewhat Uncomfortable reported an increase in comfort.

Nine (9) of the 12 (**75%**) Agreed or Strongly Agreed that KHOC had *Increased their skills teaching outside*. Again, those who were originally Neutral were more likely to report an increase in their skillset.

However, **5** of the **6** teachers (**83%**) who were originally Somewhat Uncomfortable teaching outdoors Agreed or Strongly Agreed that they *spent more time teaching outdoors this school year than I did last school year*. (Overall **82%** of these teachers agreed with this statement.)

And promisingly, **100%** of these survey respondents Agreed or Strongly Agreed that they *intend to continue teaching lessons that get kids active outdoors in the future*.

2. Helping Teachers Meet Curriculum Standards.

As part of introducing outdoor 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. This was particularly important given that for **52%** of survey respondents, 2014-15 was the first year the **new Common Core Standards** had been implemented at their schools.

Generally, I think it was well aligned. I was able to use both science and social studies curriculum in class to support KHOC lessons.

~A KHOC teacher

KHOC had been designed taking Common Core into account, but at the time of design (2012), Common Core had not been implemented by any school. So it was very important this year to determine whether KHOC supports Common Core in action, and whether there are curriculum changes EBRPD should make to strengthen the alignment.

Overall, results were promising: **59%** of respondents Agreed or Strongly Agreed that the lessons helped them meet new curriculum standards:⁵

Q: KHOC lessons helped me to meet new Common Core Curriculum Standards.

Answer Options	Response Percent	Response Count
Strongly Agree	14.8%	4
Agree	44.4%	12
Neutral	40.7%	11
Disagree	0.0%	0
Strongly Disagree	0.0%	0

While several teachers expressed appreciation for the KHOC curriculum (e.g., “*This program rounds out the science and social studies curriculum for Common Core. The focus on nonfiction materials has also been helpful for my students.*”), there were some individual responses from teachers who had suggestions for improvement:

- I would like to see more writing in the content.
- [It needs] more room in booklet to write and draw.
- More depth and less breadth. Align with the Next Generation Science Standards.⁶
- Ask students to prove their responses with more than just recalling or restating the data they read.

⁵ Some survey respondents skipped questions, so not every question has 28 responses.

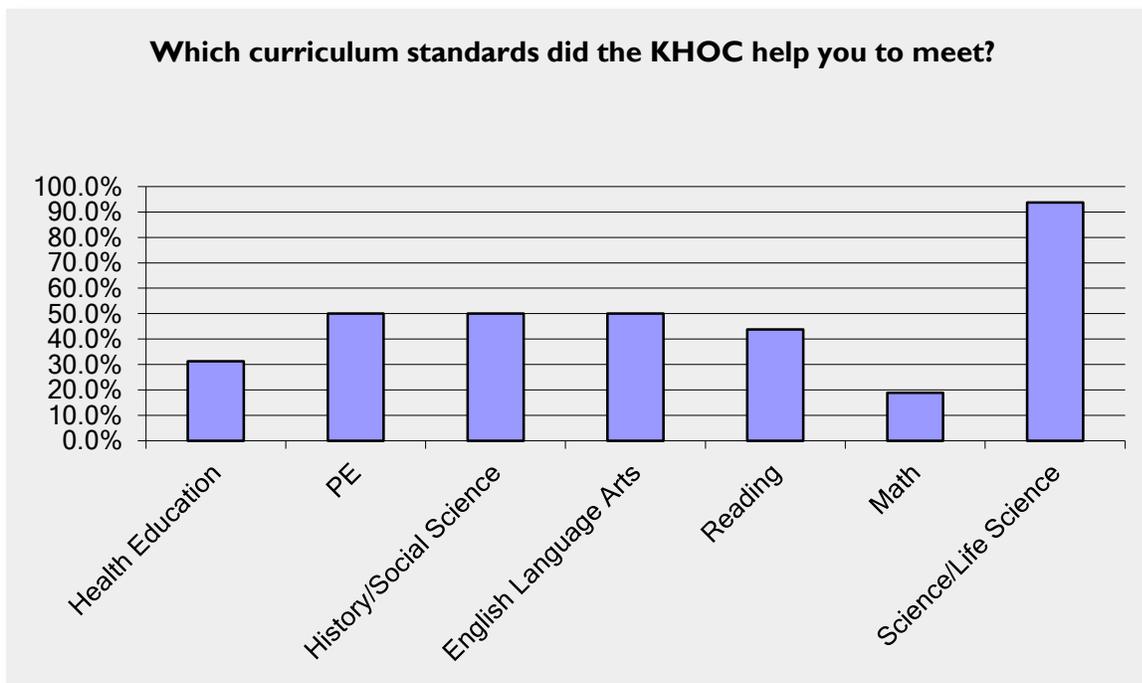
⁶ Another curriculum change, Next Generation Science Standards (NGSS) for California Public Schools, is currently in the “awareness building” phase, and will be implemented in 2018.

- Common Core standards emphasize critical thinking and finding evidence to back up your conclusions. There could be lessons on animal/plant adaptations incorporating the opportunity to closely look at plants and find examples of adaptations.
- Reading material, such as plays, chants and stories would help support the lessons as well as prepare students for the field trips.
- Integrate graphic organizers for written response to activities. Check out Arroyo’s curriculum for Camp for 4th grade (overnight camp).

But many teachers were still “feeling their way” and learning new requirements:⁷

- Just learning the standards now, but mostly concentrating on Math and ELA. I’m sure some science standards, and many social standards were supported but I don’t know them well enough at this point to tell you specifically.
- I am still learning the standards, so I am unable to decide if there were barriers or not.
- I do not feel that there were any barriers, but we had two new curriculums (Math/ELA) to implement in addition to using the new Common Core Curriculum.

Although KHOC isn’t intended to be the *only* curriculum used in a classroom, we intend to take these suggestions into account for in making curriculum revisions. As noted earlier, we will continue to encourage teachers to adapt KHOC with their own ideas to support unique class needs and protocols.



⁷ Another curriculum change, Next Generation Science Standards (NGSS) for California Public Schools, is currently in the “awareness building” phase, and will be implemented in 2018.

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 (94%); PE, Social Science and English Language Arts (50% each); and Reading (44%). These results were very similar to school year 2013-14's.⁸

Moreover, all respondents (**100%**) Agreed or Strongly Agreed with the question about whether KHOC helped students *explore and master topics they were required to learn*; this was particularly true of Science/Life Science (85%) and Social Science (73%). This is important because KHOC is designed to be a supportive curriculum *tool*, not the curriculum itself.

Finally, **92% (N=24)** 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, particularly Science/Life Science (82%), History/Social Sciences (78%), English Language Arts (35%) and PE (35%).

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 take a trip.)

3. Increasing EBRPD naturalist involvement with KHOC classrooms.

As noted, in the past, KHOC had been framed exclusively as a teacher-led activity, however, in the previous two KHOC years, teachers strongly suggested more naturalist involvement, especially on park trips.

Responding to this request, in Fall 2014, EBRPD implemented a new application process to enhance the role of EBRPD naturalists on some school park trips. Teachers were encouraged to apply for naturalists to guide their KHOC field trips, and naturalist "slots" were filled according to staff availability the day field trips were scheduled.

*This was one of the **best** parts of the program. The naturalist led programs were **outstanding**. Very student oriented, and small groups made learning accessible to **all!***

~A KHOC Teacher

Overall, about 65 classrooms had a naturalist program on their park trips (this includes classes that took more than one trip). In our educator survey, **21 of 28** respondents (**75%**) indicated they requested a EBRPD naturalist to help guide the class trip, and **all 21** of these received a naturalist-guided program as a result.

This shows that even with staffing limitations, EBRPD is making the effort to provide as many classes as possible with this experience, and the teachers were *overwhelmingly enthusiastic* about this addition to the program:

- This was my second year doing KHOC, and it was helpful for me to have the naturalist-guided program. I was able to listen and pay attention to the students' comments and engagement in the lessons.

⁸ Other curriculum topics cited as supported by KHOC included Visual Arts/Performing Arts and Social Emotional Learning.

- Greatly enhanced the learning for students to listen to an expert about Coyote Hills and the Native Americans. Again another set of connections, real life experiences and reinforcement of standards and skills.
- The naturalists at all 3 parks we visited were outstanding, enthusiastic proponents for their programs.
- The naturalists at Big Break were outstanding. I am glad we decided to make the long journey out to Antioch. We also had great programs at Crab Cove.
- I thought the naturalists at Big Break Regional were fantastic. They were accommodating and very willing to roll with the punches of having a large group of students.
- I liked having a naturalist for our trip. We went to Tilden with our three KHOC classes, and it provided half of the trip guided and half alone. I had never led my students on a hike before. It was a great learning experience for me in a safe space.
- We had great experiences at both Coyote Hills and Crab Cove. We studied the Pacific salmon, so the trip to Crab Cove was connected to what the students had been learning, but not in a substantial way.
- The guides we received during our field trips were knowledgeable and they provided age appropriate activities which helped students learn a lot.
- Both trips were fantastic. We had excellent guides that were informative, patient, and with positive energy.

Interestingly, only **31% (N=8)** indicated they had *participated in EBPRD trips or naturalist-led activities with your class in the past*, so for many, taking an EBRPD trip and working with a naturalist was new experience.

All respondents indicated they would request a naturalist as part of KHOC in the future. This important feedback shows us that KHOC should maximize use of naturalists, adding this capacity to the program in future years.

4. 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 **54% (N=14)** felt that they did.

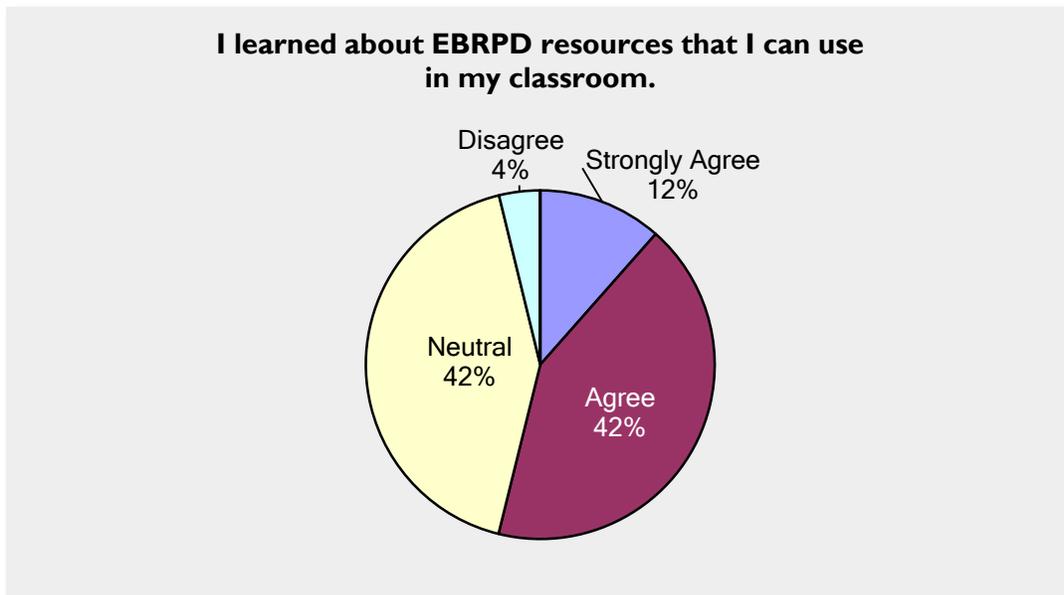
Resources mentioned included the following:

- Park maps, guides, encouraged parents to visit parks.
- How I can use EBRPD as a strong connection to health, reading, prior experiences, science, and history of the Ohlones.

There are so many items on the website that EBRPD provides. Since I've been involved with KHOC, I have been more at ease with utilizing the resources.

~A KHOC Teacher

- It was my first time learning about the resources they have at Big Break. Although our students didn't get to spend time in the visitor center, one of the naturalists was kind enough to give me a guided tour of the facility. I was impressed with the technology, the maps, and the exhibits.
- I learned that there are mobile carts, yet I didn't reserve one this year. I also went to two new regional parks that I wouldn't hesitate to go to again with my class.
- Fee waiver or reduction, bus program.
- Revised Ohlone curriculum available online.



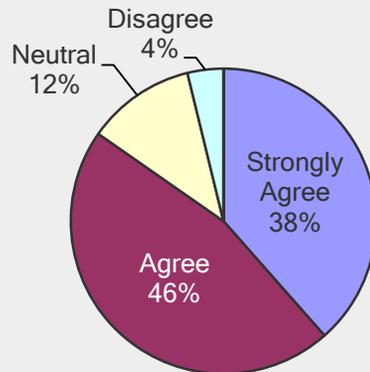
5. Engaging Students and Educators in Outdoors Education.

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:

- **96% (N=25)** of teachers responding Agreed or Strongly Agreed that participating in KHOC *made their class want to spend more time being active outdoors.*
- **100% (N=26)** Agreed or Strongly Agreed that lessons were *engaging and fun* for students.
- **100%** and **92%** respectively felt that the lessons were both *age (N=26)* and *culturally (N=24)* appropriate.
- **84% (N=22)** Agreed or Strongly Agreed they spent *more time teaching outdoors* this school year than they did the last school year.

I spent more time teaching outdoors this school year than I did last school year.



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

- They enjoyed the cricket counting and the activities about the moon and sky. These lessons made them curious and want to find out more.
- They will never forget Coyote Hills and our docent tour!
- Although we didn't actually camp out, the students were fascinated by our observations of the phases of the moon and of the constellations.
- The field trips were very engaging and we were able to visually observe what we read in text books. This makes learning much more meaningful and information retention was increased.
- We took an exploration walk to a part of our campus where we have an oak tree and students were excited to gather acorns and connect to the picture on page 8.
- Bird Bill Exercise was engaging and hands on. The students also enjoyed Dissect a Seed, using the magnifying glass, and learning new, difficult vocabulary.
- They loved "plant a seed" because we turned it into a science project that we actually presented in our science fair. They were very involved and surprised with the findings!
- Students brought back much they learned at Coyote Hills; they added to their just beginning knowledge of history with the Black Diamond Cemetery; Big Break introduced them to the fragile ecosystem there and WATER and the Delta Smelt.
- Anything that seems like a game or does an experiment.
- We went on a nature walk around our school. The kids got to see a crow building a nest, we saw an injured Canadian [Canada] Goose. We all were extremely excited.

Observing wildlife animals and organisms in the pond has been an exciting lesson for my students. All my students are inner city, urban children who have little or no experience encountering wildlife animals.

~A KHOC teacher

- One lesson they really loved was the bird beak lesson with tweezers and seeds. They recognized different shorebirds with different beaks at Crab Cove when we visited.

In terms of future impact:

- **100% (N=26)** of teachers said they *intend to continue teaching* lessons that get kids active outdoors in the future.
- **100% (N=26)** *plan to use KHOC lessons and/or booklets with other classes in future school years.*
- **88% (N=23)** *plan to share KHOC lessons and/or booklets with other teachers in my school or district.*

Most teachers, (**92% or N=24** question respondents) Agreed or Strongly Agreed that they *plan to return to EBRPD parks with their class next school year.* And **all** survey respondents (**N=26**) said they would return to EBRPD parks on their own in the future; **69% (N=18)** Strongly Agreed that they would return, showing that KHOC is successful in engaging teachers to spend more time outdoors.

All survey respondents Agreed or Strongly Agreed they would *recommend the KHOC to another teacher.* Finally, **96% (N=26)** of the survey respondents Strongly Agreed they *would participate in KHOC again* (one additional teacher Agreed they would participate again).

6. Responses from Repeat KHOC Teachers.

This school year was the first when KHOC had expanded funding, and so was able to invite teachers who had participated in KHOC previously to joining the program again. **Sixteen (16)** teachers who had previously participated in KHOC applied to repeat the program in Fall 2014, and of these **11 (69%)** completed the program this year.

Five (5) of the survey respondents indicated this was a repeat KHOC year for them.

The Park District was interested in determining these teachers were able to *help guide, mentor or provide resources to new KHOC teachers,* and **4** of the **5** indicated that they had:

- I was able to help another teacher at my site complete the requirements and complete the field trip application process.
- Teacher new to teaching 3rd grade; helped her integrate the booklet into our Foss Life Science Unit.
- I worked to help another teacher fill out the forms and give pointers on the field trips when we were planning them.
- I supported them with the paperwork and suggested lessons I had used before.

V. 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, the *KHOC website* and, as has been the case for three years in a row, *planning their class park trip*.

Planning the Park Trip: This year, **69% (N=18)** of respondents Agreed or Strongly Agreed with the statement: *it was easy to plan my park trip*. Interestingly, this is a better rate than last year when just 50% of respondents agreed, and Year 1, when 62% agreed.

It was easy to plan transportation for my park trip (e.g., use the reservation form, schedule a bus, choose a park, etc.)

Answer Options	Response Percent	Response Count
Strongly Agree	30.8%	8
Agree	38.5%	10
Neutral	7.7%	2
Disagree	11.5%	3
Strongly Disagree	7.7%	2
I did not request a park trip.	3.8%	1
	TOTAL	26

Some key comments from those who *Disagreed* included:

- It would be much easier if the form could be submitted electronically. I faxed mine. My fax showed it went through, but after not hearing back, I was told it was not received. I was unable to schedule a trip before the May deadline.
- I learned later that Parks Express needs a reservation ASAP even before we have our KHOC trip planned. So then there's a spot they are holding to get a date. We almost didn't get a Parks Express reservation for our scheduled naturalist trip because of this.
- It was difficult to deal with the Bus Coordinator for San Lorenzo Unified School District. I was about to cancel all of the trips because of the trouble he caused all of our classes at Del Rey.
- SLZUSD bus dept. is VERY difficult to work with, however Elaine [Deshaies] at EBRPD was very helpful in coordinating other busing for us.
- We had trouble scheduling a bus through our district and KHOC. We sometimes left messages and did not get return phone calls.

As seen in Section II, several non-completer teachers had also indicated that the San Lorenzo USD transportation department processes had prevented them from completing the program. This coming year, *it is recommended that trip planning process be smoothed out with this district, in particular.*

The field trips were very engaging and we were able to visually observe what we read in text books. This makes learning much more meaningful and information retention was increased.

~A KHOC teacher

Teacher Orientation: While most (**88%**) teachers Agreed or Strongly Agreed with the statement, *the teacher orientation in Fall 2014 prepared me to implement the KHOC in my classroom*, not everyone felt prepared.

According to one teacher, *“The orientation wasn’t very organized and there weren’t enough copies for the teachers. I got the basic idea but I was concerned I didn’t get all the paperwork I needed. I would have benefitted from a more streamlined presentation. How to coordinate with Parks Express and the naturalists was a little unclear until after I talked to them on the phone.”*

Several non-completer teachers also indicated that they felt confused by the program processes, or that the demands of attending a three-hour orientation prevented them from completing the program.

Ease of lesson completion during the class time available: The vast majority (**93%**) of survey respondents indicated *The KHOC lessons were easy to complete during the class time I had available*. There were only a few Neutral responses to this question.

Ease of project evaluation tools: The vast majority (**96%**) of survey respondents indicated *The project evaluation tools (e.g., class surveys and activity logs) were easy to use*. There was only one Neutral response to this question.

KHOC Website: Teachers were asked, *During the school year, did you visit the KHOC website for information about the program (e.g., forms, class materials, etc.)?* ; **92%** of respondents (**N=24**) indicated they had. These teachers were asked for suggestions to improve it, and key ideas included using the website to provide an easier (electronic) process for reserving park trips, and making it easier to find. Said one teacher: *“I had to try to find it each time. It was not easy to locate having to access through the park’s dept. website. Lots of navigation to get there.”*

Findings from our discussions with non-completer teachers (Chapter II) also suggest that the website could be used to make program processes easier—e.g., using it as a site to enhance orientation.

Other suggestions and comments: 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:

- I really enjoyed having my class participate in KHOC and hope we can do it again next year. I think some of the activities could have a little more depth to them, but I am not going to be specific at this time.
- I just would like more of the activities in the booklet to be easier for teachers and students at urban schools to implement.
- This year, I felt everything with smoothly. I like the online tool for the educator survey. The student survey would be nice to be online as well, especially in our district (OUSD), our students have access to Chrome books. The paper copy is somewhat cumbersome. Who do we send the completed forms to?
- I loved everything. The only thing I would suggest is maybe having kits that contain realia [everyday objects used as teaching aids] and reading material to use during the school year for the different lessons that are in the activity book.
- I thought it was fun and interactive.
- It was really nice to have an opportunity to take trips to parks with naturalists.

VI. Notable Differences Between Survey Results—Years 1, 2 and 3

KHOC started in school year 2012-13. In studying survey results from school year to school year, we noticed some key differences.

School Year 2014-15 results are quite positive, even more so than Year 2 results. This could be due to the fact that only completer teachers were asked to take the survey this year, with non-completer teachers providing their input through a separate phone survey (see Section II).

In addition, this cohort of respondents began the year less comfortable teaching outdoors than any previous cohort; **43%** responded Neutral or Somewhat Uncomfortable to the question *Before the KHOC, what was your comfort level conducting lessons outdoors?* This compares to **30%** last year and just **13%** the first year (2012-13).

It is possible that these somewhat uncomfortable teachers developed enthusiasm for teaching outdoors as the year progressed, resulting in improved survey results.

However, comparing results across cohorts is complicated by the fact that a new state curriculum has been instituted, and that survey respondents this year included only program “completers.” This was not true in previous years. Moreover, with small sample sizes, differences noted are not statistically significant.

Comparing educator comfort and skills teaching outdoors: As illustrated in the tables below, **79%** of 2014-15 teachers surveyed Agreed or Strongly Agreed that KHOC increased their *comfort* with leading classroom activities outdoors. This is up from 67% last year, and compares more favorably to 88% the first year of the project (2012-13). As noted, this may be due to the fact that survey respondents started out more uncomfortable than in previous years, leaving a lot of room for increased comfort and skills.

Participating in KHOC increased my <i>comfort</i> with leading classroom activities outdoors.			
	Response Percent	Response Percent	Response
	2015	2014	Percent
			2013
Strongly Agree	25.0%	22.2%	50.0%
Agree	53.6%	44.4%	37.5%
Neutral	21.4%	22.2%	12.5%
Disagree	0.0%	11.1%	0.0%
Strongly Disagree	0.0%	0.0%	0.0%

With regard to increase in skills teaching outdoors, **63%** Agreed or Strongly Agreed that KHOC increased their *skills*, comparable to 61% last year, and compared to 75% in 2012-13.

Participating in KHOC increased my skills in leading classroom activities outdoors.			
	Response Percent 2015	Response Percent 2014	Response Percent 2013
Strongly Agree	17.9%	16.7%	31.3%
Agree	60.7%	44.4%	43.8%
Neutral	21.4%	38.9%	25.0%
Disagree	0.0%	0.0%	0.0%
Strongly Disagree	0.0%	0.0%	0.0%

The bottom line is that for three years running, the majority of respondents have indicated that the program is effective in increasing skills and comfort teaching outdoors.

Helping Teachers Meet Curriculum Standards: By school year 2014-15, all participating schools had moved to the new Common Core Curriculum; for **52%** of them, this school year was the first year they implemented Common Core.

Per the table below, fewer teachers this year (**59%**) and last year (**50%**) Agreed or Strongly Agreed that *the lessons helped them meet curriculum standards* than they had in Year 1 (**75%**).

KHOC lessons helped me to meet curriculum standards.			
	Response Percent 2015	Response Percent 2014	Response Percent 2013
Strongly Agree	14.8%	5.6%	31.3%
Agree	44.4%	44.4%	43.8%
Neutral	40.7%	33.3%	25.0%
Disagree	0.0%	16.7%	0.0%
Strongly Disagree	0.0%	0.0%	0.0%

It is possible that the shift to Common Core is a reason for this decrease. For the upcoming year, it is recommended that teacher-suggested changes be made to the KHOC curriculum to better support alignment with curriculum standards.

As has been true in past years, teachers who felt supported by the curriculum cited Science/Life Science as the area most aligned with KHOC. 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.⁹ EBRPD is delighted that KHOC supports this critical curriculum content area.

⁹ *High Hopes – Few Opportunities: The Status of Elementary Science Education in California*, 2011.

Encouragingly, this year, **92% (N=24)** 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 rate had been just **67%** last year, and **81%** in Year 1.

Engaging Students and Educators in Outdoors Education: One notable increase 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 was **94%** in Year 1, but decreased to **78%** in Year 2. This year (Year 3), **92%** of respondents Agreed or Strongly Agreed that they plan to return to our parks with their classes.

In terms of future impact, rates have also improved:

- This year **100%** of teachers said they *intend to continue teaching* lessons that get kids active outdoors in the future, compared to **89%** last year and **100%** in Year 1.
- **100%** plan to use KHOC lessons and/or booklets with other classes in future school years compared to just **56%** last year (this question was not asked in Year 1).
- **88%** plan to share KHOC lessons and/or booklets with other teachers in my school or district compared to **67%** last year (this question was not asked in Year 1).

These results suggest that KHOC is beginning to have an impact beyond the immediately participating class, with the possibility of positive future effects.

VII. Lessons Learned & Recommendations for the Future

EBRPD has now finished three full years of the KHOC program, and based upon three years of feedback, it is clear 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.



KHOC evolves and changes each year. School year 2014-15 saw the full implementation of the Common Core curriculum, and other operational changes such as the decentralization in the administration of the program.

The opportunity to ask KHOC teachers for feedback is invaluable not only because it gives us information about program impact, but because it helps us make improvements each year.

For example, the addition of naturalist-supported park trips to KHOC this year was a suggestion during the two pilot years of KHOC. Teachers missed having naturalist guidance and expertise when they went out to parks with their classes. Responding to this feedback, EBRPD implemented a process

to enhance the role of EBRPD naturalists on some school park trips this year. Most teachers who requested this involvement received it, and feedback was overwhelmingly positive. It was, in fact, one of the most popular parts of the program, with one teacher remarking it was the *best* part.

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

Additional Naturalist Involvement: In future years, KHOC should explore resources to include naturalist involvement on *all* park trips, and to maximize their involvement with teachers and classes throughout the year.

Park Trip Improvements: The process for requesting buses for park trips, and scheduling trips, has consistently been for teachers the most confusing part of KHOC. The EBRPD process is that all transportation requests go directly to Parks Express. This year, both completer *and* non-completer teachers from San Lorenzo Unified School District indicated that reconciling the Parks Express process with their district's bus reservation processes prevented them from taking park trips. This was a new piece of information—the process in San Lorenzo seems more bureaucratic, and this coming year, *it is recommended that trip planning process be smoothed out with this district.*

I felt much more comfortable analyzing and enjoying nature and in sharing that with the students.

~A KHOC Teacher

A review of all reservation processes is recommended before school year 2015-16 to ensure that they are as clear and as smooth as possible. For instance, one teacher remarked that her faxed bus request was never received. Another suggested that reservations through a web-based system could be effective.

Regardless, all processes need to be explained repeatedly during teacher orientation. Although instructions are given during orientation, teachers may forget where to look for information, where to send their requests, or who to call if they have any questions.

Streamlining Paperwork and Scheduling: Among non-completer teachers, there was some concern that project deadlines, such as the request for a naturalist led trip, came too early in the year. Every year, there is a tension between EBRP scheduling needs, and the busy schedules and pressures that teacher face.

This coming year, in order to reduce the burden, KHOC will eliminate the activity log, folding information collected in the log into the year-end survey. If there are any hard participation deadlines (e.g., requests for naturalist involvement), teachers should be notified repeatedly, and in advance, of upcoming deadlines.

Although naturalists did a good job with frequent email blasts, more may be required, along with more frequent updates to the KHOC website in order to keep in touch with teachers and ensure that they are continuing to make progress using the KHOC curriculum.

The KHOC Website & Social Media: As KHOC expands, EBRPD may wish to explore the website and other online tools to help manage the demands of administering the project. Some suggestions made this year included:

- Make the “URL” easier to find when you search for KHOC on the EBRPD home page.
- Use the website as much as possible for administrative tasks such as applying to KHOC, submitting transportation requests, etc.
- Utilize the website as a site for teacher orientation, perhaps making materials available there.
- Keep the website regularly updated with upcoming program requirements and deadlines.

In addition, EBRPD may explore implementing a KHOC Facebook page in the coming school year. This will serve as another platform to keep teachers engaged and informed, and will also provide a forum for teachers to share experiences, tips, resources, photos and other items from their trips.

Orientation: It was primarily non-completer teachers who commented on the difficulties they had finding time for the three hour teacher orientation held in the fall. Holding this training on a weeknight or Saturday was a barrier for some, as was the three hour time frame. But needs of the teachers must be balanced with training needs. For instance, even after orientation, some teachers have difficulty with instructions (such as the transportation request), underscoring the need for some level of orientation.

In addition, attending an orientation allows teachers the opportunity to see a park, meet naturalists, and get ideas from other teachers. It is also a good way to gauge a teacher's commitment to completing the program. Therefore, orientations will continue to be held; however, repeat teachers (those who completed KHOC orientations in prior years) will *not* be required to attend.

In addition, self-guided orientation options will be added (see below). Additional ideas that might be piloted include orientation packets mailed to teachers, webinars, and materials posted on the KHOC website. Surveying teachers about their preferred training times may also help alleviate scheduling concerns. Finally, per one orientation attendee's comment, trainers should make sure there are enough materials to go around.

Centralization issues: As noted, with the growth in the program, administration of the KHOC process was divided among three KHOC naturalists, each of whom communicated with the cohort of teachers who attended their fall orientation. This process generally worked well, but there was some confusion. For instance, some teacher activity logs were misplaced after they were submitted; some of the teachers mistakenly sent their activity logs to the Parks Express Coordinator instead of the Orientation Leader (KHOC naturalists).

There needs to be clarity about where forms are sent, and a process in place for collecting all in a central location. Also, all forms should be redesigned to clearly indicate where they should be sent. Use of the website to submit forms may also help alleviate these problems.

Curriculum Materials and Alignment with Common Core: Although KHOC is not intended to be the only curriculum used to meet state standards, and we encourage curriculum tailoring to meet individual classroom needs, EBRPD wants the KHOC curriculum to be as aligned with (and supportive of) state curriculum standards as possible.

This year, we surveyed teachers about ideas to make KHOC more supportive of Common Core. Since there have been no revisions to the KHOC curriculum since school year 2012-13, it is suggested that identified changes be made, such as adding more writing and response sections to the kids' booklet to support learning, reflection, vocabulary and review of concepts. There are also a few missing worksheets and misspellings to correct. (Suggestions for revisions have been sent under separate cover.)

Goals and Participation Targets for Year 4: EBRPD looks forward to school year 2015-16 with great enthusiasm. This year, a staff committee was formed with the goal of generating new ideas, including expanding self-guided opportunities for KHOC teachers and their low income students (over and above expanded naturalist-led activities). The committee identified four Regional Parks as targeted sites for expansion of self-guided opportunities.

The parks (Redwood Regional Park in Oakland, Garin Regional Park in Hayward, Martinez Regional Shoreline in Martinez and Shadow Cliffs Regional Recreation Area in Pleasanton) were selected for their accessibility, program opportunities, facilities that support class trips and are located in different parts of the East Bay.

The committee will develop new park-specific activities and support materials for target parks and have these materials completed in time for the 2015 round of teacher orientations. These materials will cover both natural and cultural history topics and be allied with State Content Standards for third grade students.

To support and facilitate self-guided field trips to the four selected parks, the committee will create “Teacher Kits” to support class trips. Kits will include identification guides and tools for the students to use, such as hand lenses or binoculars. These kits will be grant-funded, and available for teachers to check out at any of the District’s seven visitor centers.

In addition to park-specific activities, Teacher Kits and the current KHOC Activity Guide, staff recommends extending participation by teachers in the KHOC program for up to three years. KHOC would fund bus transportation for self-guided trips for any interested teacher for two additional years.

It remains to be seen how many classrooms can be invited to participate this coming year, and this is a decision to be made in partnership with the funding arm of EBRPD, the Regional Parks Foundation.

EBRPD is excited about reaching out to even more schools in Alameda and Contra Costa County, and deepening the ever-growing 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, improving health and well-being in our communities.

Thank you to KHOC funders!



And for support and inspiration from:



Kids Healthy Outdoors Challenge (KHOC)
2014-2015 School Year Pilot Project

EXHIBIT A: Student Response to KHOC

As part of the KHOC evaluation, teachers were asked to conduct short student end-of-year surveys with their classes; questions focused on memorable activities students did during the year, and what they learned about parks, nature or the environment. They were also asked if they had visited a park or gone into nature with their family during the year.

Teachers at five schools returned the surveys (Del Rey in San Lorenzo, Downer in San Pablo, J.O Ford in Richmond, Jefferson in San Leandro, and Murphy in Richmond). We present a sampling of student impressions and quotes here.

1. A majority of students (71%) answered Yes to the question *“My family and I have visited a park or gone into nature this year.”*

School	Answered Yes	Number of Surveys	Percent Yes
Del Rey	35	51	69%
Downer	41	58	71%
Ford	13	17	76%
Jefferson	72	98	73%
Murphy	11	19	58%
TOTAL	172	243	71%

Although this sample of KHOC students is small, it is encouraging to see that many families take advantage of the beautiful natural spaces the East Bay and Bay Area have to offer.

2. Some quotes about **favorite activities students did with their classes outdoors:**

Students from **Del Rey Elementary:**

- ★ Going to Crab Cove and walking on the tide pools.
- ★ To feed the goats in Ardenwood Historic Farm.
- ★ Crab Cove is a beautiful place with a walking path.
- ★ At Ardenwood Farm, I remember how to scoop the poop!
- ★ We fed chickens.

*The outdoors is so COOL
and we can also learn.*

~A KHOC student from
Jefferson Elementary

- ★ I held a crab at Crab Cove.
- ★ When my socks got wet and dirty.
- ★ Going to Crab Cove and having fun in the scavenger hunt.
- ★ Going to Crab Cove and playing in the mud and making sandcastles with my friends.
- ★ Playing soccer at Crab Cove.
- ★ I get to learn and play with my friends at the field trips.

Students from **Downer Elementary:**

- ★ The favorite thing I did with my class is we did a nature hunt.
- ★ The sheep because it was awesome.
- ★ I saw turtles and a big farm and cows.
- ★ The field trip is Tilden Farm. It was so fun I wanted to go again.
- ★ In Tilden Park I loved the animals. I also liked the bunny. I also liked grinding the corn and feeding the ducks.
- ★ To go to trips because it's good for you and good for your body, and nature is good for everything.
- ★ Go in front of school and find nature stuff like leaf, nuts.
- ★ Going to Tilden Park in the bus and playing soccer.

Students from **J.O. Ford Elementary:**

- ★ Go[ing] to Crab Cove we learned about nature and animals. They had a store. I had a great time.
- ★ I remember that in Crab Cove we were looking for crabs.
- ★ The favorite thing I did with my class was trying to find animals in a garden.
- ★ Going inside a cave, touching a big coal rocky ant going to the funeral.
- ★ When I go to Crab Cove it was fun because you get to be dirty.
- ★ I remember about our field trip (to) Black Diamond Mines that we saw a snake in the cemetery.
- ★ My favorite thing was when we saw the stone animals in Black Diamond mine when we went into the cave.
- ★ I had so much fun hanging out with my whole class.
- ★ Great because we saw coal and tons of ores.
- ★ When we play with sand.
- ★ That I heard a rattlesnake in the grass and we were scared.

- ★ Going hiking in a park but there was a lot of lizards and my mom got scared because she saw something move.
- ★ In Black Diamond Mines the miners recycled their houses.
- ★ People use to move their houses to wherever they went.

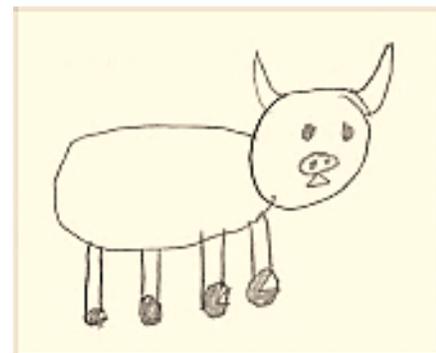


Students from **Jefferson Elementary:**

- ★ Going to Big Break because Coyote Hills only taught the class about native life.
- ★ My favorite outdoor thing we did is hunting skills or games.
- ★ The favorite thing I did learn about scat.
- ★ My favorite thing was petting a baby snake and looking at dried tule.
- ★ My favorite thing is kick ball.
- ★ When we were going to do bike riding everybody was going to choose the bike that you could ride and the helmet that fits you.
- ★ I liked when we made our necklaces in the garden.
- ★ When we broke a geode rock from Coyote Hills with a hammer and looked at the crystals.
- ★ To go to our school garden. I found a ladybug a worm, a small spider and a roly-poly.
- ★ I like the Coyote Hills Regional Park because we got to play Hoop and pole.
- ★ When we went to Coyote Hills I liked when we went in the butterfly garden. And I learned a poison oak poem.
- ★ We went to Coyote Hills and there were no ticks and we also discovered scat and other cool stuff.

Students from **Murphy Elementary:**

- ★ Was see a turtle on a log. It was crawling on the log and fell.
- ★ Was use a box to look for nature.
- ★ I saw a deer.
- ★ To go to Tilden Park for a field trip. That I saw a banana slug. I also saw ducks and turtles. In addition, I saw a dusty-footed pack rat.
- ★ My favorite part was when I fed the cow.



3. Students were asked to describe **new things they learned about parks, nature or the environment** this year. Each class had interesting things to say on topics ranging from taking care of nature and the environment, things they learned about the natural world, and even about dangerous things or “inconveniences” related to being in nature.

Students from **Del Rey Elementary:**

- ★ Plants can make their own food.
- ★ Taking care of animals; staying with your group.
- ★ Pull up a rock to see the crabs and small sea animals.
- ★ I learned that the predator eats the prey, the prey eats the plant, and the plant gets sunshine from the sun.
- ★ We sing a song called “the food chain.”
- ★ We learned about Indian corn.
- ★ That animals, bugs also can be very sensitive.
- ★ Nature has trees, plants and give us food.
- ★ Flip over a crab, and if it has a triangle on it’s a boy but if it’s not there it’s a girl.
- ★ Beavers teeth is made of iron, and it grows forever.
- ★ Nature was quiet and loud sometimes.
- ★ That scat is a sign, evidence that an animal was there.
- ★ Scat is good.
- ★ It is important to care for animals and plants.
- ★ At Crab Cove that birds with long beaks put them in the ground and took out shrimp.
- ★ The delta at Big Break gives water to animals.
- ★ The food chain beginning with microinvertebrates.
- ★ About 100 years ago kids were slaves and only ate about 3 times a day in 15 hours.
- ★ There are all of these animals everywhere.
- ★ Bubble snails, ghost shrimp and crabs, we also learned that tides high and low.
- ★ Small green crabs don’t pinch but the red ones with lines do.

Parks can be anywhere and nature can be in the park.

~A KHOC student from
Downer Elementary

The environment gives us everything we need. Nature gives us wood, food and many other stuff.

~A KHOC student from
Downer Elementary

Students from **Downer Elementary:**

- ★ We got to pet the animals. Some of them felt furry and also some felt soft.
- ★ We were talking about what kind of food grows on the farm.
- ★ Do not touch poison ivy and stay with your group.

- ★ To be careful with the cows, the rabbits, the goats, the sheep and the chickens.
- ★ That I saw there was little white thing that was flying and that I thought was bugs but then I learned that they were flying seeds.
- ★ Not to litter.
- ★ I learned the Miwok used acorns to make soup.
- ★ The animals have families and baby.
- ★ That they need to wash the wool of the sheep.
- ★ Hens give us eggs. Cows give us milk. Cows give us cheese. Cheese is made from milk. Cows can hold in their back a lot of heavy things.
- ★ That chicken like crushed corn and that cows have four stomachs.
- ★ To take good care of the animals and not throw trash at them or they will die or get sick.
- ★ That nature gives us oxygen and gives us food.
- ★ We learned about a food that is made from the seeds of various grasses.
- ★ I will not throw trash and I will not be mean.



Students from **J.O. Ford Elementary:**

- ★ Recycle more, don't throw trash at the floor.
- ★ I learn that allot of stuff is nature.
- ★ Learn about rattlesnakes.
- ★ If you see a snake, let it be, and if you see bees, don't kill them.
- ★ Parks have ugly animals and sometimes parks have stores.
- ★ There are snakes in Black Diamond.
- ★ It is so dangerous sometimes because there are dangerous animals in parks, lake and mountains.
- ★ Fun but scary because there were snakes.
- ★ That the bathrooms were different when you closed it, it was dark and you couldn't flush it or wash your hands.
- ★ Animals can be extincted like in oceans throwing oil can kill seals and whales with other animals.
- ★ A lot of animals live under us. And there is even snakes!!! And it was scary.
- ★ That we can touch some stuff, and some stuff not—like poison ivy.
- ★ Do not litter and do not touch the ants.
- ★ We learned a lot of things about the rocks and we touch coal.

Students from **Jefferson Elementary:**

- ★ I learned about how Big Break was formed by flooding.
- ★ That natives never take something from the world without saying please, and give something back.
- ★ At Coyote Hills we learned about how they (Native Americans) used obsidian to make arrows and they used beads to make a necklace.
- ★ It is bad to take stuff from the park and other places.
- ★ One thing I remember was when I went to Coyote Hills and made necklaces out of dogbane and beads.
- ★ Dogbane will sting if you don't cut it off.
- ★ You can eat some plants and stay away from poison ivy.
- ★ Nature is beautiful because animals are awesome.
- ★ Don't leave trash in the nature because it affect the animals.
- ★ Finding an owl house where they live and some mouse bones.
- ★ That I saw a bird nest for the first time with my own eyes.
- ★ That the Native Americans fought for the life to keep living.
- ★ Everywhere I go I have to protect animals and plants.
- ★ That nature is a little bit bad. There's a plant that when you touch it sprays a bad chemical.
- ★ I was being attacked by birds.
- ★ Taking a hike. It was fun!
- ★ I learned not to touch ivy with three leaves.
- ★ To leave creatures alone, personal space—don't scare them.
- ★ Whatever you pick up from the ground just put it back.
- ★ One thing I remember about our field trip is hiking and I heard bird noises.
- ★ I remembered that we saw birds and the great big heron and we saw some birds with the binoculars.
- ★ We learned about wind.

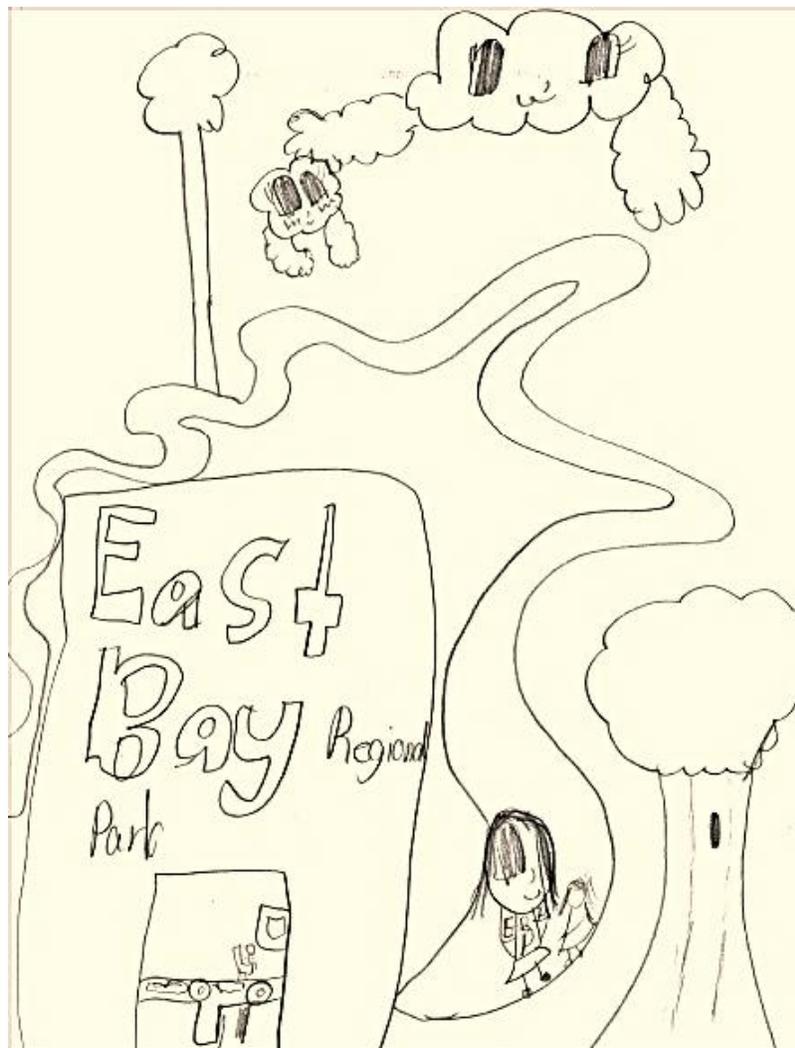
Students from **Murphy Elementary:**

- ★ That you cannot touch poison oak.
- ★ A rat house and a cow.
- ★ You should not disrespect the environment.
- ★ That it is important to stay with an adult in the woods.
- ★ That the dusty-footed pack rats are nocturnal and they live alone in a big pile of sticks.

I want to take care of the plants and animals because they help the earth!

~A KHOC student from
Jefferson Elementary

- ★ Different types of color poison oak at different times (seasons).
- ★ A puddle is a good way to look for animal tracks. But when we saw was a puddle but it was too dry.
- ★ You need to take care of the environment.





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