



Kids Healthy Outdoors Challenge (KHOC)

2017-2018 School Year Report

July 2018

KHOC is funded by:



KHOC 2017-2018 School Year Report

Table of Contents

Section	Page
I. Executive Summary	3
II. 2017-18 Program Changes	8
III. 2017-18 Participant Attrition & Noncompletion.....	10
<i>Survey Results:</i>	
IV. How Teachers Conducted KHOC.....	11
V. Cultural and Linguistic Accessibility.....	15
VI. Outcomes.....	17
VII. Teacher Feedback on Project Processes.....	31
VIII. Lessons Learned & Recommendations for the Future	34
Addendum: KHOC Student Artwork.....	37

Credits: Photos from Coyote Hills by KHOC teacher Mindy Geminder of Washington School in Berkeley, and from Garin by Diana Kotake of Birch Grove Intermediate in Newark.



Art from Crab Cove by a KHOC student from Achieve Academy

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.

I just LOVED that my kids started to see themselves as hikers and were so proud of their experiences in our regional parks.

~A KHOC Teacher

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.* Helping to make KHOC even more

accessible, 2017-2018 was the first year that a Spanish-language version of the student workbook was available, with translation funded by the Regional Parks Foundation.

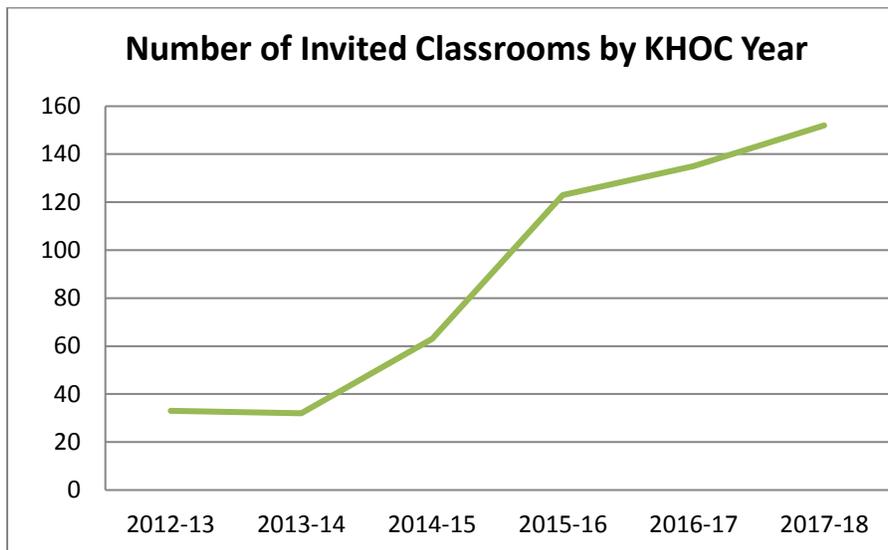
Some KHOC lessons are designed to support classroom learning *at school and in parks*, while the other half are ideal for students and families to explore *outside of class*. Each chapter contains fun, interactive activities that relate to the chapter topic. For example, in *Connect to the Past*, lessons 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 2017-18 was KHOC's sixth year, and each teacher was asked to use 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.

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

School Year 2017-2018 KHOC Invitees: In 2017-18, KHOC participation continued to grow, with **152** invited teachers and classrooms, up from 135 last year.



In recent years, KHOC procedures have been streamlined so that fewer resources are needed to support the program, so more teachers can participate.

But this year, in order to accommodate more teachers who had not experienced KHOC before, EBRPD limited participation to teachers who had participated no more than twice before (those who had participated three or more times were asked to check out self-guided park options which are introduced at teacher orientation, and discussed in section II).² As a result, KHOC had fewer previous participants than in prior years: just **25%** (N=29) this year compared to 46% in 2016-17.

My students really enjoyed the activities and were truly excited to be in the outdoors. Since they come from a low-income community, being able to go outdoors is not always easy.

~A KHOC teacher

Teachers may 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, *self-guided trip kits and instructions* are introduced at teacher orientation so that teachers can deepen their skills teaching outdoors, a major aim of the program.

In fall 2017, teachers from 152 classrooms were asked to attend the KHOC orientation. They represented 53 public schools in Alameda (77%) and Contra Costa (23%) Counties. In all, 14 school districts were represented; one charter school, an Alameda County Office of Education school and a special state school for deaf children were also included.

² One exception to this rule was made for schools that require all third grade classrooms to have the same experiences, i.e., if one class can't participate, none can. Teachers who have "termed out" are offered a supply of KHOC booklets for their class.

KHOC continues 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.

There was a wide variety of schools and students, with 57% reporting they came from an urban, 41% from a suburban, and 2% from a rural school (in South Alameda County). 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), ranging from 5% to 100%. On average, 65% of students were eligible for FRPM across classrooms, and the median was 71%.

	Average	Range
Class size	24	[6, 30] ³
% students eligible for FRPM	65%	[5%, 100%]
% English as a Second Language (ESL) students	45%	[5%, 100%] Spanish, Cantonese, Mandarin, Tagalog, Vietnamese, Arabic, Farsi, Punjabi and Hindi commonly spoken

Overall, students in classrooms invited to participate were approximately **48% Latino, 17% Asian, 13% African American, 13% Caucasian** (non-Latino), **1% Pacific Islander, 1% Native American, 4% More than One Race, and 3% Other.**



Invited KHOC Teachers: There was also variation in invited *teachers*. As was true last year, teachers average almost 12 years of experience in the classroom, but some were brand new, and several had 30 years of experience (one teacher was in her 34th year).

Comfort level teaching outdoors among invited teachers was somewhat lower at the beginning of the school year than in previous years, with **78%** of invited teachers stating they were either **Very or Somewhat Comfortable** teaching outdoors (last year, this rate was 88%, and the year before 83%). Seventeen percent (17%) felt Neutral about their comfort level, and 5% indicated they were Somewhat or Very Uncomfortable teaching outdoors.

The overall lower rate of comfort may be due to the fact that 2017-18 was the first year in which KHOC participation was cut off after three years, so that fewer teachers had participated before.

³ The classroom with 6 students was from a small school for the Deaf.

KHOC Participants and Survey Process: Of the 152 teachers invited to participate, **80%** (N=121) 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.)

Overall, more than **2,800 third grade students** participated or had some level of exposure to KHOC. There were about **71 bus trips**⁴ to EBRPD parks during the year, attended by approximately **4,700** 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 teachers who attended the KHOC orientation were asked to take a year-end survey in May 2018. This is conducted at the end of each school year to determine whether project outcomes were met, and to gain feedback from program participants. This year, **50% responded** (N= 61).⁵

Of these 61 survey respondents, **93%** (N=57) had fully completed the program by using KHOC lessons *and* taking a park trip. (See Section III for information about program attrition and noncompletion).

Survey Outcomes: KHOC seeks to increase educator comfort and skills teaching outdoors. For the sixth year in a row, the majority of teachers indicate that KHOC meets this goal: **90%** Agreed or Strongly Agreed that *participating in KHOC increased their comfort with leading classroom activities outdoors*; **80%** Agreed or Strongly Agreed that *participating in the project increased their skills teaching outdoors*.⁶

99% of KHOC survey respondents want to keep teaching their classes outdoors in the future.

It was also important that teachers not feel that KHOC took time away from meeting curriculum standards; **69%** Agreed or Strongly Agreed that *KHOC helped them to meet curriculum standards* (and the rest of the respondents were neutral on this question).

Survey results continue to show that KHOC increases student and educator enthusiasm for learning outdoors, particularly in park settings:

- **96%** 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*.
- **88%** Agreed or Strongly Agreed that lessons were *engaging and fun* for students.
- **99%** of respondents said they *intend to continue teaching lessons that get kids active outdoors* in the future.
- **79%** Agreed or Strongly Agreed they *spent more time teaching outdoors* this school year than they did the last school year. (This rate is up from 60% last year when there were many more previous KHOC participants who had already begun teaching outdoors. First time KHOC

⁴ Some of these trips had multiple classrooms from a school.

⁵ A total of 62 survey responses were received, but one was from a teacher who had not attended the orientation or completed the program, and did not complete the survey. This survey was not counted in results,

⁶ First time KHOC teachers were about 3 times more likely to *Strongly Agree* these skills had increased.

teachers this year were over 3 times more likely to *Strongly Agree* they spent more time teaching outdoors.)

Section VII of this report details their challenges and suggestions (most particularly this year, regarding park transportation).

*We loved participating in KHOC this year and are hopeful that it continues next year. It's the **only** way our 3rd students get outdoor education trips...*

~A KHOC Teacher

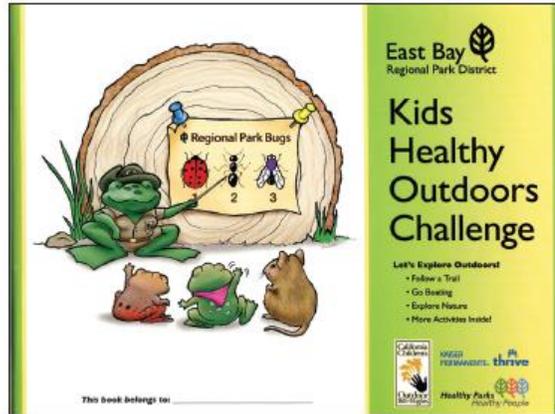
Conclusion: KHOC continues its tradition of helping teachers increase their skills and comfort teaching outdoors. With more and more participants each year, there is evidence KHOC is beginning to change the way teachers teach.

In the following report, we explore ways to make it easier to help teachers take the lead in outdoors education, introducing natural spaces to their students across the East Bay.

II. 2017-18 Program Changes

Every year, EBRPD makes program revisions based on teacher feedback. Ideas and suggestions come to us through the year-end survey, and through communications with teachers throughout the year.

Perhaps the most exciting program enhancement for the 2017-18 school year was the development of a Spanish-language kids' KHOC booklet. Teachers had requested this translation for several years, and it was made available in September 2017 thanks to special funding raised by the Regional Parks Foundation.



Other key changes for the year included:

- *A new guideline limiting a teacher's KHOC participation to three years total:* This change was made to prioritize resources for newer KHOC teachers, and also to encourage experienced teachers to utilize new skills and KHOC activity books to continue using the Regional Parks (and self-guided materials) on their own. (One caveat to this guideline was that if a teacher with three+ years of experience applied from a school with less experienced teachers, and if that school required all third grade classrooms to have the same experiences, those teachers were invited to participate.)
- *Ongoing promotion of self-guided field trip options:* Although teachers could still apply for naturalist leaders to help guide park trips, KHOC continued to train and encourage teachers to use self-guided activity kits available at four geographically disperse parks:
 - Garin Regional Park, Hayward
 - Radke-Martinez Regional Shoreline, Martinez
 - Redwood Regional Park, Oakland
 - Shadow Cliffs Regional Recreation Area, Pleasanton

Self-guided materials have activities highlighting the natural and cultural resources of each park. Instructions are provided on the KHOC website, and activity packs and materials are available for checkout to teachers. This year, EBRPD streamlined check-out procedures, training all park staff on where to direct teachers, and also making kits available at centralized visitor centers for parks that don't have their own. EBRPD also plans to develop kits for additional parks in the future.

- *Transportation Challenges:* EBRPD (and other educational/recreational programs) continue to face a challenge in reserving buses for park trips. This is due to competition for buses, with technology companies, in particular, paying top dollar for commuter transportation for their employees.

To streamline processes as much as possible, Parks Express (the EBRPD department that arranges for transportation) came to KHOC teacher orientations to answer questions about how to get a bus as quickly as possible. Because bus companies sometimes prioritize the needs of other customers over EBRPD requests, many teachers are using their own district buses and being reimbursed by KHOC. Transportation issues were a focus of several survey questions, and a discussion of feedback related to transportation is in Section VII.

- *Upcoming new curriculum standards:* Next Generation Science Standards for California (California NGSS) have been adopted across the state, and districts are rolling them out at varying paces. According to the Alameda County Office of Education (ACOE), some districts, such as Oakland Unified, were early implementers while others are just beginning to train teachers (19% of teachers in our survey had not year started to explore the new standards). Within the next few school years, most districts should have made the transition.

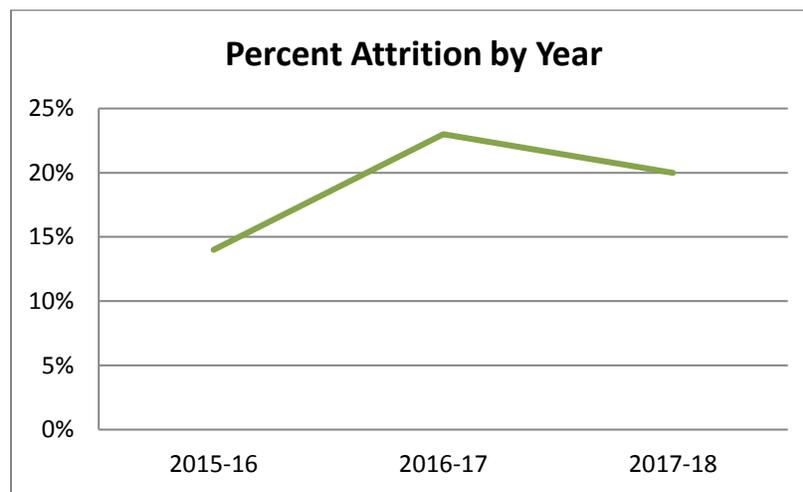
Because alignment with California NGSS represents an important “next step” in KHOC’s evolution, our survey sought ongoing educator input on future revisions of KHOC.

III. 2017-2018 Participant Attrition & Noncompletion

Each year, KHOC experiences some attrition, that is, teachers who do not complete the basic program requirements (i.e., attending the orientation, using KHOC lessons with their classes, and taking a park trip).

In fall 2017, teachers from **152** classrooms were invited to attend a KHOC orientation, with a choice of five dates and locations. 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.

Thirty one (31) teachers or **20%** of invited teachers did not attend, and so were immediately counted as program non-completers. Reasons for not attending the orientation frequently include scheduling and childcare issues. This early attrition rate has been variable in recent years, but overall, has increased with the increasing number of invitees:



In the survey, an additional four teachers (7% of those who had gone to an orientation) indicated they had *not* completed KHOC program activities. Three did not use KHOC lessons in the classroom, but went on the park trip. One teacher had not used lessons *or* taken a park trip.

Attrition and non-completion can be due to many factors. Our survey respondents told us:

- I wanted to but could not find the time in the schedule to do so.
- [There was]... lack of parent chaperone/support. Unable to go on trip without it.
- District curriculum requirements and mandatory minutes CAASPP test preparation.
- We went on a field trip lead by a ranger. We did not complete a lesson from the workbook. Being the first year I taught 3rd grade, there was not a lot of time to do anything other than the required curriculum.

IV. Survey Results: How Teachers Conducted KHOC

Rate of survey response and program completion: This year, of 152 invitees, 121 (or 80%) 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).

My students became better nature observers and scientists. Thank you for your program!
~A KHOC teacher

Each of these 121 teachers were asked to take the KHOC year-end “completer” survey in May 2018, and 61 teachers responded to the survey, providing at least partial survey responses (this represents a **50% response rate**).⁷

As noted, full KHOC “completion” was defined as attending orientation, using KHOC lessons in the classroom, and taking an EBRPD park trip, and **93%** of survey respondents (N=57) **had successfully completed the project**.⁸

Like the overall pool of invitees, the survey respondents were largely experienced educators, with an average of 14 years of teaching experience. The range was from under one to 36 years of experience.

Park Trips: Overall, there were about **71** bus trips to 12 EBRPD parks taken by teachers/classrooms during the year.⁹ There were about **4,700** students and other passengers on these trips.¹⁰

The **most popular park destinations** were: Coyote Hills (23% of trips; relics here tie in closely to Social Science standards); Tilden Nature Area (15%, with rolling hills and ponds); Crab Cove (13%, a great place for shoreline exploration) and Black Diamond Mines (11%, a good site to learn about local history).

2018 EBRPD Parks Visited¹¹

Coyote Hills	23%	Shadow Cliffs	6%
Tilden Nature Area	15%	Del Valle	4%
Crab Cove	13%	Martinez Shoreline	4%
Black Diamond Mines	11%	Ardenwood	3%
Big Break	8%	Temescal	3%
Redwood	8%	Garin	1%

⁷ Not every teacher answered every survey question, resulting in a varying number of responses for each question.

⁸ Excess KHOC paperwork has been eliminated, so we rely on survey results to determine rate of completion, with the caveat that completer teachers are more likely to take the survey.

⁹ Some of these trips had multiple classrooms from a school.

¹⁰ This is a duplicated count. A few classrooms went on *more than one trip*, and the passenger count includes students, teachers, parents and chaperones, etc.

¹¹ This includes teachers who booked a bus through their Unified School District with reimbursement from the KHOC program.



Use of KHOC Curriculum: The KHOC curriculum has a teacher guide, as well as a student workbook full of activities, and **93%** of survey respondents *utilized the KHOC curriculum in their classroom.*

Some of the most popular lessons included *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 frame) and *Bird Bill* adaptations (in which students use tools like tweezers and toothpicks to lift different types of “food”). Some teachers did just one or two lessons, and some, many. One teacher surveyed had even done all the lessons!

Teachers were asked to comment and give feedback on the KHOC lessons, and how students reacted to them. Comments included:

- *Students enjoyed lessons and appreciated the content given before attending KHOC field excursions.*
- *The students were very engaged and the lesson was age appropriate.*
- *They loved the pond study the most.*
- *The kids loved them and they never seemed intimidated when asked to use them.*

Some suggestions or critiques included:

- *The teacher guide and workbook are still pretty challenging to navigate as they don't align to each other.*
- *We used most of lessons 1-5 in some way, but we had a much harder time envisioning how to incorporate lessons 6-10 in the classroom.*
- *I think the program needs a separation for what can be done with family - swimming, boating, etc. and what can be done on a field trip.*
- *Some of them were simple, but we augmented them. I like the variety of activities. The nighttime ones, boating ones are hard to assign or complete.*
- *Ride a bike, learn to swim, go boating, and go fishing are all positive lessons, but hard to connect with many of our students.*

The majority (**71%**) of survey respondents indicated that *KHOC lessons were easy to complete during the class time I had available*, fewer than the 87% in last year's survey. About 8% disagreed with this statement, and comments included:

- *Need to complete all district required curriculum within the mandated minutes...*
- *Many of the lessons weren't connected to the content I was teaching. They were very specific and I wish that the lesson had more broad subjects that could be adapted easily.*
- *I could not complete many of the lessons because they were not accessible or relevant to my work with students (camping outside, going fishing, etc.)*

- *This was probably me, it was hard to get students' buy in.*

Overall, teachers agreed that KHOC lessons were age and grade appropriate for students, with **87%** Agreeing or Strongly Agreeing this was so (the remaining 13% felt neutral about this statement).

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, **70%** of survey respondents indicated they had *individualized or tailored the curriculum*. Some adaptations were made for practical reasons such as time and resources available:

- *Simply abbreviating the lessons or spreading them out over more time. Reason being for my ELL students and improvising the lessons into other activities.*
- *It was mostly shortened due to time constraints.*
- *We played the games and did the "how to treat nature" activities but do not have time in the school day for more activities.*
- *Some of the lessons were interesting for the students, but due to some time constraints, I had to adapt to meet needs of curriculum that I was teaching. I utilized the booklet for the students when I ran out of time during the lesson that I was teaching.*
- *World in a box lesson. I added some additional materials to our garden area (some faux insects and placed extra leaves on the ground) in our school's garden to add more variety to their worlds.*
- *There was bike rodeo at our school, so after we did the activity with kids learning to ride a bike with the people we did the activities in the kids' book. For World in a Box, we used a square already drawn on the yard.*

We used the binoculars to go birdwatching and saw a Wilson's warbler and an acorn woodpecker (and turtles), we caught water bugs.

~A KHOC teacher

Some made adaptations to align activities with other curricula:

- *With Lesson 1 I couldn't find the map so I wasn't able to include that part. I did cover the rest and related it to our field trip to Tule Pond and our SEAL unit that focuses on San Lorenzo history.*
- *We worked on a lesson in clusters and connected with district science curriculum.*
- *I tied in the constellation lesson with the ones we use in FOSS, which include stories...*

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

- *Connect with the Past: Students were able to talk about their families and where they came from as well as discuss artifacts that they brought in. I talked about my Cherokee background and brought in artifacts from the past to share with them.*

- *We actually participated in Trout in the Classroom and went to Lake Temescal to release our tiny fry. So we used the map of the trails at the lake to draw our own maps in science journals. We also picked up trash and sorted and weighed it after our hike. We used some other activities including a Predation Simulation and drawing/writing postcards from sitting still observing at Lake Temescal.*
- *We have been doing mapping exercises with Y-Plan around Oakland. Also took the past into the future by thinking about sea-level rise and how to best prepare for that in Oakland.*
- *We used the Build a Kite activity as a math activity around using a ruler. Our objective was for students to measure accurately in inches. We modified the directions so that there was more measurement involved for students.*
- *For the Seed lesson, I showed the kids a short video of the parts of the seeds, and how it grows. This provided the kids more background knowledge especially some of my needy kids.*

Although a new Spanish-language KHOC kids booklet was available this year, one teacher remarked, “We translated for ELD students,” suggesting that translation into additional languages may be helpful.

V. Cultural and Linguistic Accessibility



KHOC is designed to be used by third graders of different cultural backgrounds and language abilities. Survey respondents tell us that KHOC is, overall, quite accessible to students of different backgrounds and language abilities:

- *I think all the kids were engaged and it didn't matter what their cultural or linguistic background was.*
- *I found all activities to be accessible to all students with appropriate support.*
- *I think the first-hand experiences are the absolute best way to acquire new vocabulary and use that vocabulary in a meaningful context.*
- *The illustrations and photographs within the book definitely helped to support my struggling readers access the content.*

KHOC's "hands-on" activities were repeatedly called out as being particularly helpful for English Learners:

- *I have a lot of English language learners and the ability to be hands on helped them to better connect with their learning and discuss topics.*
- *Spanish speaking students had a little more difficulty understanding certain terms, but drawings and other hands on activities in the lesson were helpful .*
- *The vocabulary is quite difficult for the beginning English Learners but I think they got the drift of it. Even though they may not understand all of it, they at least got the hands on experience to grasp part of the complexity of the vocabulary words.*

I have 11 English learners and the vocabulary and language involved were not too difficult for them. ... since I work at a Title I school many of my students do not spend a lot of time at parks or have opportunities to spend time outside exploring and being active, so this was a great introduction for them.

~A KHOC teacher

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

- *All kids from the various backgrounds responded accordingly to enjoying nature and realizing the benefits that come from it. More expressive, more comfortable to explore and open up.*
- *All my kids loved it and I was glad to take them outdoors. Kids who normally wouldn't have access to the parks are able to go and were really interested in learning about all the native plants.*

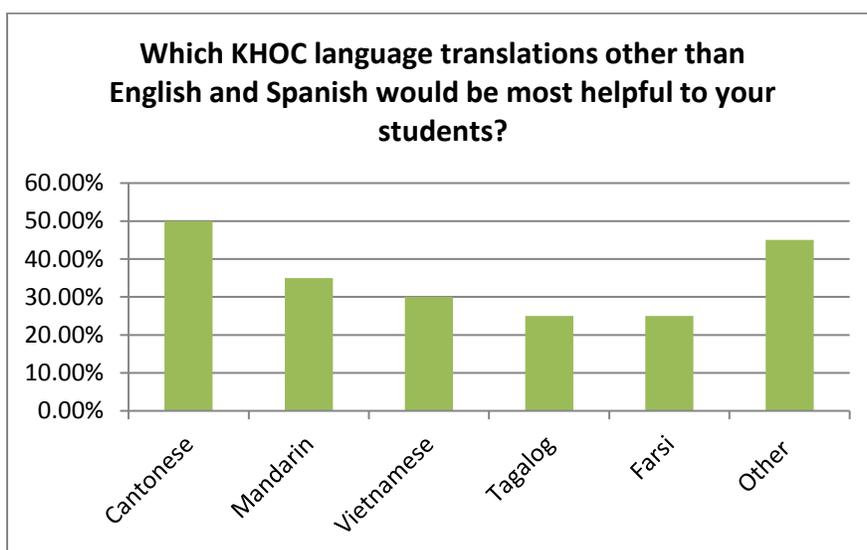
KHOC increased its linguistic access this year by making a **Spanish-language version of the kids' booklet** available for the very first time. This had been a suggestion in past years, and additional funding raised by the Regional Parks Foundation made this possible.

In this year's survey, **19%** of respondents (N=9) said they had used this translation. The average number of copies used in these classrooms was 16, and the range used was 5 copies all the way up to 28.

EBRPD asked teachers how the new Spanish translation worked, and how these English Language Learner students KHOC activities. Feedback included:

- *It was very well received by my Spanish speaking students. I didn't have to give much clarifying questions.*
- *They were much more helpful when conducting lessons.*
- *The students were excited to go home and share with their parents.*
- *It was great and really helpful!*

Teachers were asked about other language translations that would help their students; Cantonese (50% or 10 responses), Mandarin (35% or N = 7) and Vietnamese (30% or N=6) were the top responses. ¹²



I teach a 3rd grade bilingual class, so I was happy to have the books in Spanish.
~A KHOC teacher

On average, respondents indicated that 1-2 students in their classrooms would benefit from Cantonese, Mandarin, Vietnamese, Tagalog and Farsi translations.

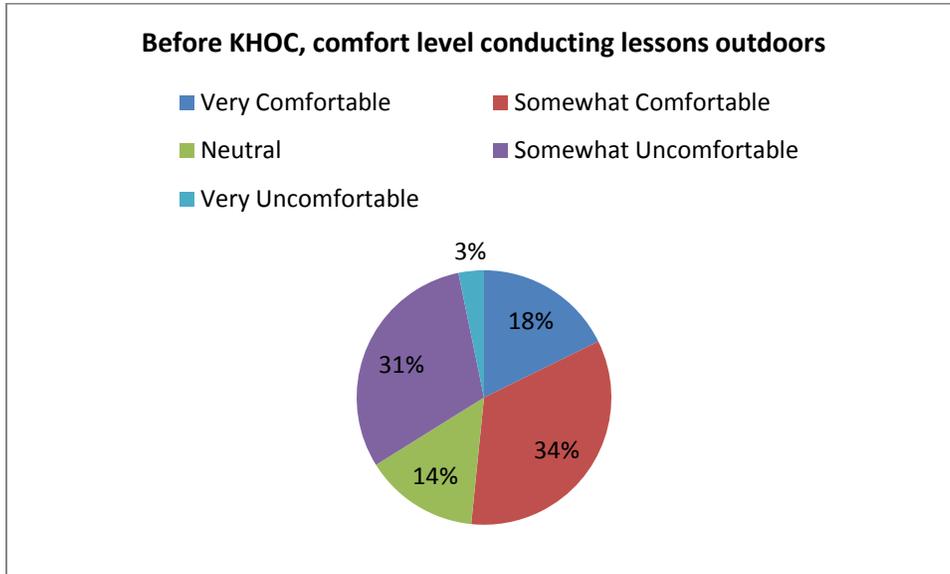
However, one teacher thought no additional translations were needed because, “...third grade students need to learn English and even the ones who speak another language don't even read in their own language. I think this would be a waste of money.”

¹² Languages in the “Other” category included Arabic, Korean, French, Russian, Nepalese, Japanese, Portuguese, and Hmong.

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 **52%** (N=33) of the survey respondents said they had had at least *some level of comfort teaching outdoors* before participating in the project.



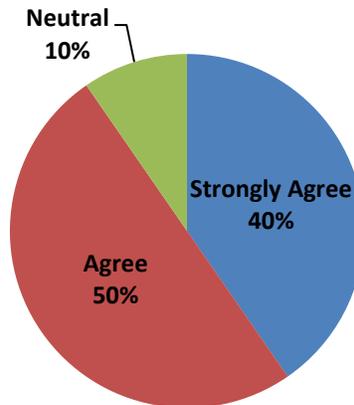
Interestingly, at the outset of the program, the survey respondents overall had less overall comfort than the original pool of all invited teachers. At least 34% of survey respondents had some level of discomfort at the beginning of the year, compared to just 5% of overall originally invited participants:

Comfort level	All invitees in fall 2017	Survey respondents in spring 2018
Very Comfortable	41%	18%
Somewhat Comfortable	37%	34%
Neutral	17%	15%
Somewhat Uncomfortable	5%	31%
Very Uncomfortable	>1%	3%

This may be accounted for by a higher percentage of brand-new KHOC teachers. Two thirds of previous participants in the survey indicated they were Very Comfortable or Comfortable vs. just 50% of first time KHOC teachers. As a result, there was considerable room for KHOC to help survey teachers feel more comfortable teaching outdoors, a major project goal.

This year, survey question, **90%** (N=47) Agreed or Strongly Agreed that KHOC increased their *comfort* with leading classroom activities outdoors:

Participating in the KHOC increased my COMFORT with leading classroom activities outdoors.



KHOC has helped me realize how important it is for my students to have opportunities to be in natural park settings to explore, learn, and enjoy. Many of my students had never hiked on a forest trail, learned about redwood trees, or climbed a hill before. KHOC has not only increased my confidence in teaching outdoors but taught me how necessary and valuable it is for my students to experience the natural world away from their neighborhood.

~A KHOC Teacher

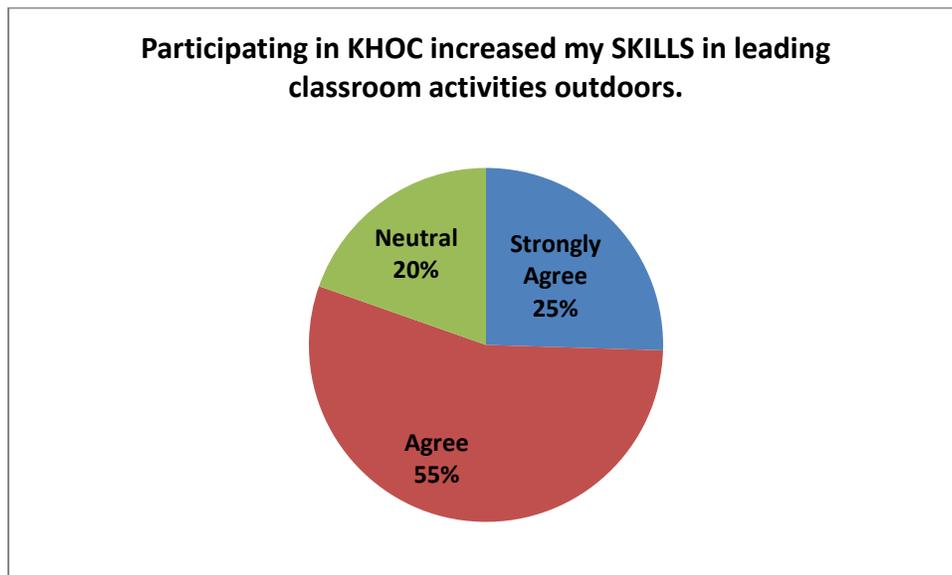
Teacher comments that underscored growth in *comfort* included:

- *I love spending time in our regional parks but hadn't gotten my kids out there. So grateful for the chance to have them in the parks on serious hikes that pushed them and getting to learn about the Ohlone on their original land.*
- *I think what really helped me was the workshop I went to back in November. We had a discussion in the classroom and then went out to the park and Susan Ramos led the group. She walked us through what a really field trip was like. She was the teacher and we were the students. She did an excellent job of showing us how it wasn't that difficult.*
- *The KHOC materials gave me specific, manageable activities that related to our standards and were age appropriate. It removed the barrier of coming up with activities.*
- *First, it made me comfortable to even consider going to an outside location for the day. I appreciated having the guide however because they have so much more information and knowledge than I do.*
- *I learned that there are a lot of ways to connect the outdoors to the classroom, and that students are able to stay engaged even with so much freedom.*
- *To simply share with my students the wonderment of Nature was easy to keep them engaged because I tried to keep them continually curious and to ask questions.*

- *Having available a set of quality, accessible lessons from KHOC to implement gave me more time to concentrate on the people management aspects of the field trip.*
- *I feel that going on the field trips and observing the different rangers/docents leading activities is like professional development. I can now think of leading similar activities in other EBRParks whether or not we have a scheduled tour.*
- *We had lesson plans for what to do with students rather than just hike and eat in a park. :)*
- *I felt confident of maintaining my classroom together outdoors and getting their attention right away, keeping everyone together and delivering a lesson in which they were all engaged.*

Several teachers also noted that self-guided park kits had increased their comfort teaching outdoors. (See Section 5).

Next, **80%** (N=41) Agreed or Strongly Agreed that participating in the project increased their skills teaching outdoors:



In teacher feedback, about a third of respondents said that participating in KHOC has helped improve their classroom management skills while teaching outdoors, such as keeping students' attention:

- *Participating in KHOC increased my management skills especially when dealing with kids outside the confines of my classroom.*
- *Classroom management skills in keeping children under control when given the freedom of the outdoors.*

When planning our trip to Redwoods Regional Park I thought about the experiences I wanted my students to have while there. Getting and keeping their attention was sometimes challenging because they were very excited. I wanted them to slow down and use their senses to experience more, so we started with a listening circle where we closed our eyes and were quiet for 2-3 minutes to just listen. We heard birds and the creek water gurgling. Later, we used the World in a Box to slow down and draw in the Redwood Forest interactive path area. By focusing on our senses: listening and observing while drawing, my students were able to notice and appreciate more of the natural world. Having a clear purpose for the experiences and thinking about strategies to help my students slow down and focus allowed these moments to be successful.

~A KHOC Teacher

Other teacher comments underscoring growth in skill set included:

- *I think my knowledge of the plant life increased. Also how to figure out what animals live in the park by being able to identify their foot prints.*
- *I know what to study for next year! For instance, Coyote Hills had monarch butterflies, which I wasn't aware of.*
- *I think seeing how the naturalists work with the adults during our workshop and then with the students on the trip helped alleviate some of the anxieties I had about having the kids in an open area. Walking backwards was an impressive feat.*
- *I think watching other rangers/docents is more helpful than the lesson plans in the activity book. I got content-specific knowledge from the activities in the parks. I like seeing different ways to model watersheds with hands and squirt bottles, predation simulation tag games, and I gathered information to share with students to make our outdoor lessons more bay-specific about erosion, adaptations, etc.*
- *Curriculum ideas as we are between science curriculums right now in our district and have been left to our own devices.*
- *Knowing that my passion for nature is transferable with KHOC activities.*



Increasing skills and comfort for those originally less comfortable teaching outdoors: Of respondents (N=23) who had indicated they were either Neutral or Uncomfortable about teaching outdoors at the start of the year, **91%** Agreed or Strongly Agreed that participating in KHOC increased their comfort and **75%** their skills leading classroom activities outdoors. This is comparable to the rates in the overall teacher respondent pool.

In addition, **75%** Agreed or Strongly Agreed that they spent more time teaching outdoors this school year than I did last school year. This compared to **79%** in the overall respondent pool.

Overall, **95%** 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, 98% of teachers agreed.) Most or **95%** would participate in KHOC again.

2. Helping Teachers Meet Curriculum Standards.

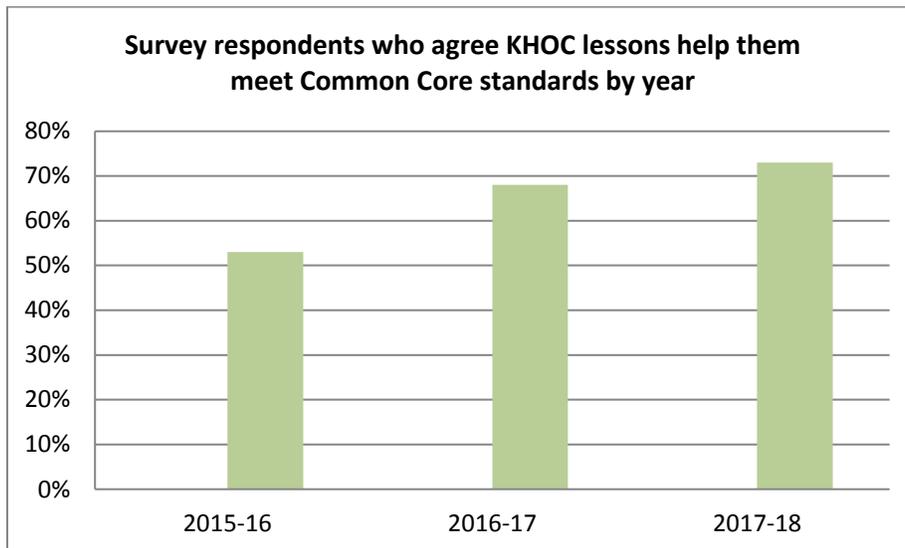
I think that the KHOC experiences set a real comfort and knowledge of the Ohlone and their environment. We used that for our expo project, small group research and kids were motivated and enthusiastic about learning more. They felt empowered by their experience to research and write about the Ohlone.

~A KHOC teacher

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.

Of survey respondents who had used KHOC lessons, **73%** Agreed or Strongly Agreed that the lessons helped them meet Common Core standards (the rest of the respondents were Neutral on this topic).

There is a general increase in the percent of teachers agreeing that KHOC helps them meet Common Core standards since the curriculum was revised to align with new standards in 2015:



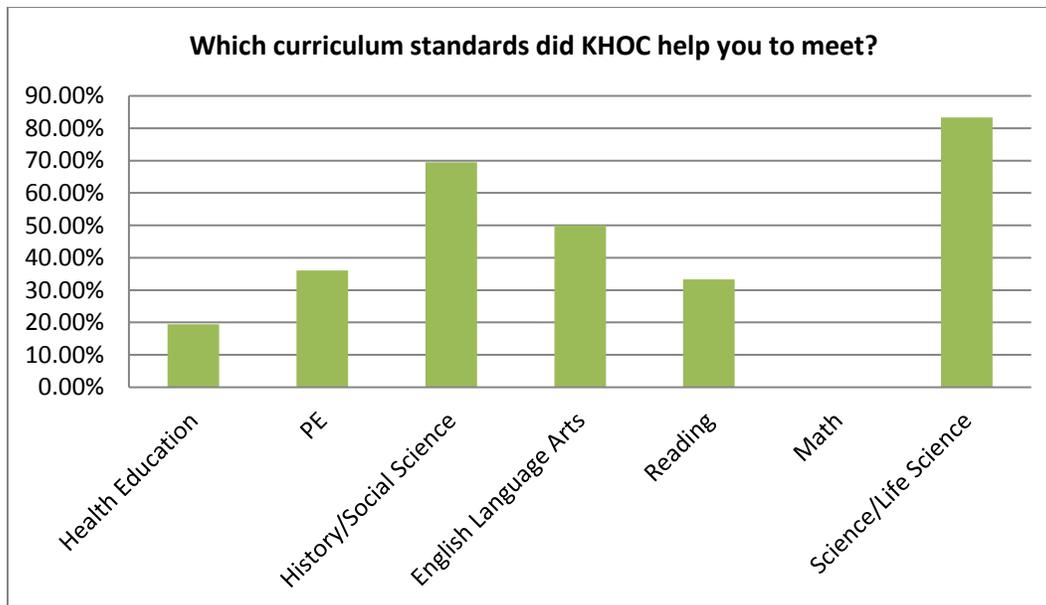
While many teachers expressed appreciation for the KHOC curriculum (e.g., “I think the way the program at Coyote Hills is set up correlates to Common Core, because it delves into the Ohlone Cultures in depth”), many teachers had suggestions for improvement.

Suggestions for Curriculum Improvement

- *If revising the activity book, I would suggest possibly adding more text that could include opportunities for critical thinking about environmental issues, history, or updated NGSS 3rd grade content.*
- *Perhaps develop an extension lesson designed to be implemented post-field trip.*
- *Maybe list the standard that's covered in each activity.*
- *More STEM lessons.*
- *If possible include in the workbook a part about liquids and energy for 3rd grade common core. Part of the science curriculum talks about how liquids can turn into solids and turn into rain. And also there is a section on energy. Natural resources contribute to energy.*
- *I think, esp. for 3rd grade, pulling out more Ohlone-based resources would be super helpful. videos, websites, curricula, etc.*
- *I think the curriculum needs a separation for what can be done with family - swimming, boating, etc. vs. what can be done on a field trip or in the classroom.*

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. (Please see upcoming section for possible future alignment with California Next Generation Science Standards.)

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 (83%); History/Social Science (69%), English Language Arts (50%); Reading (33%), and Physical Education (36%).



I want to learn more about nature. I want to be like John Muir!

~A KHOC student

Moreover, **80%** 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 also had many anecdotes about student reaction and learning:

- *We also used the Redwood Regional Park experience as a way to go deeper with writing. We did poems for our expo project. We worked on descriptive language and they came up with amazing pieces about the bark, slugs, trees, and so much more.*
- *The students connected their thinking with what Kristina P. [the naturalist] said about poison oak (leaves of 3 let it be, if it's shiny, watch your hiney). Kids talked about how it has an adaptation so predators will get a rash when it touched the leaves. This supports our learning in NGSS.*
- *I noticed that our students were much more engaged in discussions about the Ohlone after KHOC activities in Lesson 1 and visiting the Ohlone village at Coyote Hills.*
- *Our NGSS standards include understanding how animals affect their environments. On our field trip, we learned about keystone species and what would happen if one of them disappeared from the environment.*
- *My students observed a banana slug and newts (at Tilden). Of course, they were fascinated, and able to use their observations to further discuss how animals adapt in order to survive.*
- *They are still talking about the leaches we found in the pond.*
- *My students were very excited to learn about constellations, to learn about them in context of a camping trip, and then some families went on trips they spoke about their experiences camping and made some connections with the lessons, looking at the stars was one big one.*
- *The hands on approach of the lessons supported by the field trips encouraged students to dip deep and learn. On the field trips themselves it gave tons of students the opportunity to learn through the outdoors, something that would NOT happen without this program!*
- *We are studying the birds in the wetlands and the lesson on the different types of beaks really helped them focus on the types of food the birds eat.*

Oh now I understand the butterfly life cycle, it makes so much more sense now!

~A KHOC student

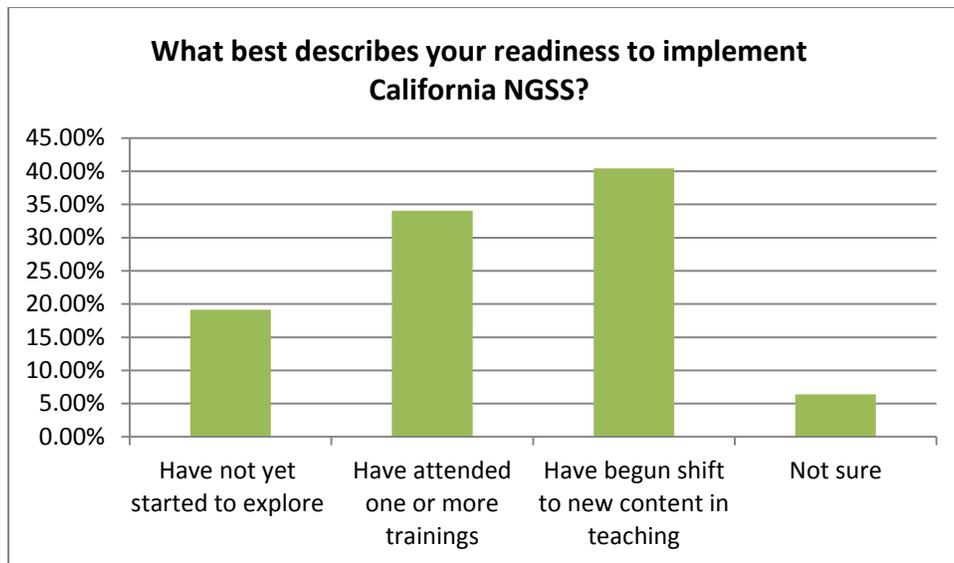
We need the new teaching materials for NGSS in Berkeley. They have not given them yet, but will begin with grades 4-5 next year. I hope they will include 3rd [grade] ASAP.

~A KHOC teacher

Next Generation Science Standards: California's current science standards have not been updated since 1998, and are missing recent scientific advances. Additionally, a large part of the state's economy is based on science, technology, and engineering (www.nextgenscience.org/california).

New, rigorous science standards – *Next Generation Science Standards for California (California NGSS)* – have been adopted across the state, and districts are implementing them at varying paces. According to the Alameda County Office of Education (ACOE), some districts, such as Oakland Unified, were early implementers while others are just beginning to train teachers

Among survey respondents, **74%** have begun professional development on or have already started to use the new standards; other respondents had not yet started to explore the standards or were unsure of their status. But within the next few school years, most districts should have made this transition.



According to an ACOE report, “The CA NGSS presents a unique opportunity to examine site and district science programs and how these programs align with the new science standards and the district's vision for learning. Foundational to these new science standards is a belief that science education must begin in the earliest of years” (O’Conner, 2018 Alameda County Science Needs Assessment Survey Results and Report).

Because alignment with California NGSS is an essential next step for KHOC,¹³ the survey sought educator input on necessary revisions of KHOC. While many didn’t feel prepared to comment yet, key suggestions included:

- *The 3rd grade NGSS content has shifted greatly within the Earth Science and Physical Science areas. KHOC could update the curriculum lesson book to align with these new standards. It could also feature environmental issues or even engineering. The Cross-Cutting Concepts could be a lens to look through or even a writing prompt for students.*
- *For third grade NGSS, we are learning about life cycles, animals living in different environments, forces, and weather.*
- *Create activities that include debating or engineering solutions to problems in the environment.*
- *I hear that Environmental Sciences are going to be implemented at all grade levels in the future. I think that those standards along with this program will work perfectly together.*
- *Again, more lessons geared to what we are learning such as animal habitats/variation.*
- *Include the science and engineering practices in the activities.*
- *Perhaps provide video links that match a KHOC lesson/field trip to CA NGSS?*
- *For third grade we study genetics for life science - so adding that component...*

¹³ KHOC was last revised in 2015 to better align with Common Core.

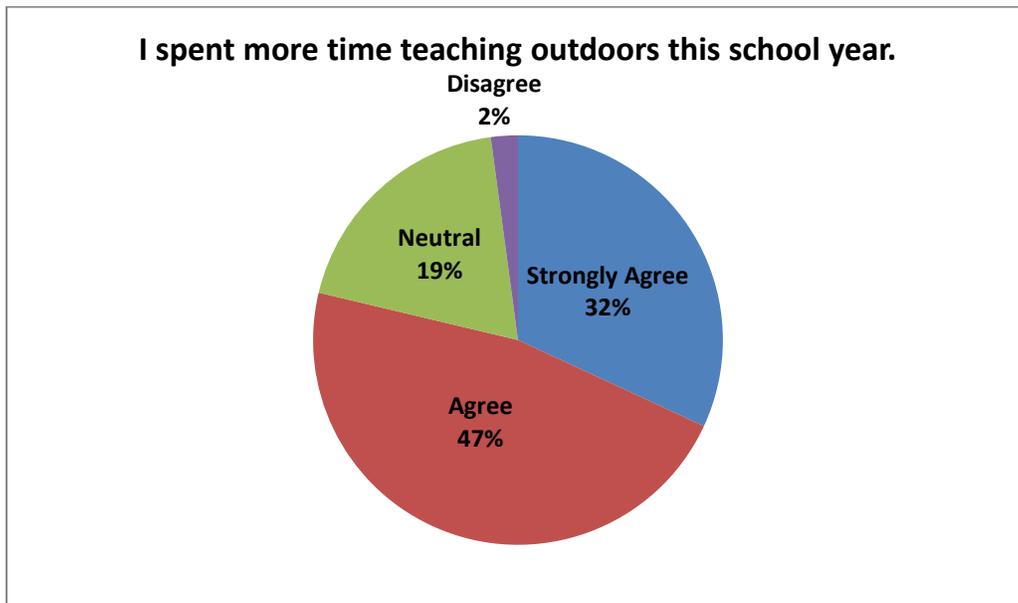


3. Engaging Students and Educators in Outdoors Education.

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 majority (**88%**) Agreed or Strongly Agreed that lessons were *engaging and fun* for students (the remaining 12% felt Neutral).

Moreover, **96%** (N=45) of respondents Agreed or Strongly Agreed that participating in KHOC *made their class want to spend more time being active outdoors*.

For teachers, 79% (N=37) Agreed or Strongly Agreed they spent *more time teaching outdoors* this school year than they did the last school year. (This is an increase from just 60% last year, and this increase may be due to the higher percentage of first-time KHOC teachers in the cohort.)



In terms of future KHOC impact:

- Similar to last year’s respondents, **98%** (N=46) of teachers said they *intend to continue teaching* lessons that get kids active outdoors in the future.
- **87%** (N=41) *plan to use KHOC lessons and/or booklets with other classes in future school years*.
- Most teachers, **91%** or N=43 respondents Agreed or Strongly Agreed that they *plan to return to EBRPD parks with their class next school year*

- **96%** (N=45) 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 **100%**, of survey respondents Agreed or Strongly Agreed they would *recommend KHOC to another teacher*. Finally, **98%** (N=46) of the survey respondents agreed they would *participate in KHOC again*, and **83%** Strongly Agreed with this statement.

4. EBRPD naturalist involvement with KHOC classrooms.

KHOC teachers can 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, so some teachers do not receive them. (This is also why training on self-guided trips has become such an important focus of KHOC, per next section 5).

I chose it (Crab Cove) because it's a place that is close enough that my students have not been to but could bring their family back to have an experience with them. It's also a nice reminder that there is beautiful nature right where we live. And it's just a great field trip :)

~A KHOC Teacher

In our survey, **83%** (N=39) of teachers submitted a request for an EBRPD naturalist help guide their KHOC park trip. Of these, **80%** (N=31) received a naturalist-guided program as part of the park trip.

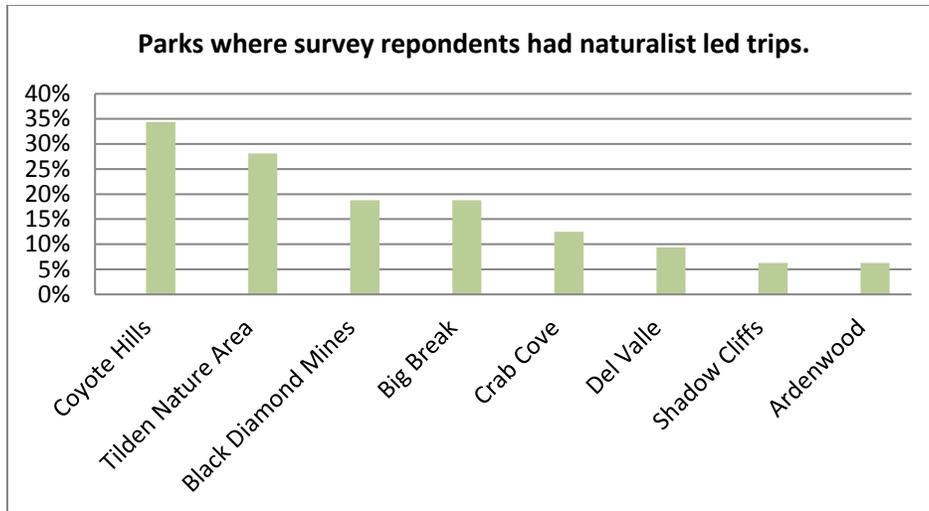


Of eight who had not, several indicated that scheduling difficulties with EBRPD (or with bus companies) had played a role. Remarkd one teacher, “*We had limited dates that we were able to come (due to district bus issues) and the naturalists were not available on that day.*”

A few teachers were not given a reason; one group of 5 classrooms could not be accommodated, and one teacher remarked, “*I don't know but it was disappointing that we didn't get one. How does that get chosen? Shouldn't KHOC have priority?*”

However, some teachers took the opportunity to **improve their self-guided trip skills**: “*We were put on the waiting list for a program at Coyote Hills. So I took my students to Lake Temescal with 2 colleagues and we created our own program.*”

The following parks were where survey respondents and their classrooms had naturalist experiences, with most taking place at Coyote Hills and Tilden.



Some of the reasons for choosing these parks included:

- We chose this park because of the Ohlone activities (Coyote Hills, cited by numerous respondents).
- Tilden offers a variety of environments to explore (aquatic, wooded, open space/farm stables).
- I had never been to Crab Cove and one of my colleagues had been and said it was really a great field trip.
- They have more in depth knowledge of the park and history (Black Diamond Mines).
- It was [one of] the few ones available (Del Valle).
- Proximity or location (for several parks).

As in past years, most teachers were very enthusiastic about naturalist involvement, and several said they wouldn't want to have the trips with them:

- It was important because they are super knowledgeable about those places and can provide better hands on activities than me or the other teachers.
- Great place, wonderful study of botany of the area and also Ohlone, both part of our study in third grade. So pretty there, and we enjoyed our three small hikes, and one with a wonderful naturalist, as well as her presentation on the Ohlone.
- Well-done; explored two aquatic environments plus wooded area, discussed and observed various wildlife and signs of wildlife; discussed how various animals had adaptations that enhanced their survival
- The naturalist was fantastic. She worked well with the students and held their attention throughout the visit. Also she was accommodating with our time constraints. We had a great time.
- I was able to attend two trips, one with and one without a naturalist. The Naturalist totally ENHANCES the program!

It helped me to see how simple leading an outdoor field trip could be.
~A KHOC Teacher

One key piece suggestion for was having bilingual or Spanish-speaking naturalist for ELL or Bilingual classrooms.

Most respondents (**91%**) indicated they would request a naturalist as part of KHOC in the future, underscoring the popularity of this option.

However, three teachers, or **6%** said they would *not* because **they felt comfortable leading class trips by themselves.**

This is, in fact, a major KPHOC goal. Demand for naturalist programs at EBRPD outstrips ability to present them, so every year, teachers (in KHOC and out of KHOC) are turned away. Self-guided trips are a skill-enhancing option for KHOC teachers that other teachers don't have.



5. Self-Guided Trip Options.

As noted in Section II, the KHOC orientation now includes included training on “self-guided” trips with materials and activity kits for teachers to lead their own trips.

This helps teachers learn how to start leading their own park activities in the future, and was especially important this year because *KHOC participation was limited to three years total.*

The kits are available at four EBRPD parks: Redwood Regional Park in Oakland, Garin Regional Park in Hayward, Radke-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 **25%** of survey respondents (N=12) indicated that they used these materials this year (up from 20% in 2016-17), the majority at Garin and Redwood.

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

- *The backpack activities were great! Very easy to use and great to have access to them.*
- *I loved the kits that we tried out on the KHOC training. Using those, I feel more comfortable teaching outside. It gave me ideas for making a lesson that can be conducted outside and allow children to explore their surroundings.*
- *The curriculum worked well with the boxes we checked out and used at Garin Park.*
- *The kids LOVED using the resources from the backpack. We made the books with sticks, did rubbings, poetry, art in Redwood Park and made a great plan for kids to work in teams around the Coyote Hills Regional Park visitor center (which is a great introduction to the Ohlone). Happy to share it if people want.*

But they may not have worked well for all classes. One teacher said, “The plant ID activity at Garin Park is very difficult for 3rd graders. A lot of the information in the water quality kit is also too difficult, but they loved dip netting and looking for creatures in the water.”

It was terrific to have photographs and books to create discussion and learning opportunities while hiking through the park.

~A KHOC Teacher

Staff training and other procedures to streamline kit checkout were instituted this year (allowing teachers to pick them up at locations with Visitor’s Centers), and when asked for feedback on these processes, many responded positively. However, some suggestions for further streamlining included:

- *I LOVED the process. They were SUPER responsive. But honestly, I don't think the clip boards are necessary. SO heavy and they don't need that to write.....*
- *It would be nice if there was one more set of kits. It was a little stressful only having one set available since many teachers in the Bay Area have access to it. Our field trip to Garin depended on having the kits available.*
- *More kits at more sites! Driving to Coyote Hills was a hassle.*
- *IT WAS VERY DIFFICULT. Only one set of materials held at Coyote Hills with the whole East Bay sharing makes it too difficult to get and return the materials. Please get one of each for each park.*
- *The Redwood kit was great but why is it located at Crab Cove?*

When asked which parks teachers would like to see new kits at in the future, the most popular responses were Tilden, Coyote Hills and Crab Cove.

Although there is a definite uptick in the number of teachers using the self-guided materials, the kits should be *promoted once more in next year’s teacher orientation.*

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, etc.) that they can use in their classrooms, and **25%** (N=12) of survey respondents this year felt that they did.

My students consider the trip a highlight of their third grade year.

~A KHOC Teacher

Resources mentioned included the following:

- *I want to request the mobile aquarium for next fall.*
- *I learned about the mobile resources.*
- *I received several update emails with various resources.*
- *The various free activities that I or my students can attend throughout the year.*

7. Impact on families.

KHOC seeks to introduce students and their families to East Bay parks, imparting a lifelong love of the outdoors. In our survey, **100%** of teachers felt their students wanted to return to EBRPD parks in the future, or with their families.

KHOC is having a big impact on families too!

- *I heard students say, "I want to bring my parents here" and "I think my little brother and sister would like Crab Cove."*
- *A student came to school recently and said "My family went to the park this weekend where we had our field trip!"*
- *Students and parents were impressed that we have a wonderful park close to our school and neighborhood. I heard that some students already bike to and around the park with their families.*
- *Upon hearing that the parks are free, many children vowed to return with their families.*
- *"I am totally going to come with my family and do the nature art," was said by many students.*
- *Several parents asked me for EBRPD parks addresses and website links.*
- *They were very excited to use the map on the back of the booklet. Several of the students saved maps that they had collected on the Big Break trip and brought them along on our next trip to Lake Temescal.*
- *Many of our chaperones remarked on what a great time they had with their kids and how they should do more things like that in the future.*

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.

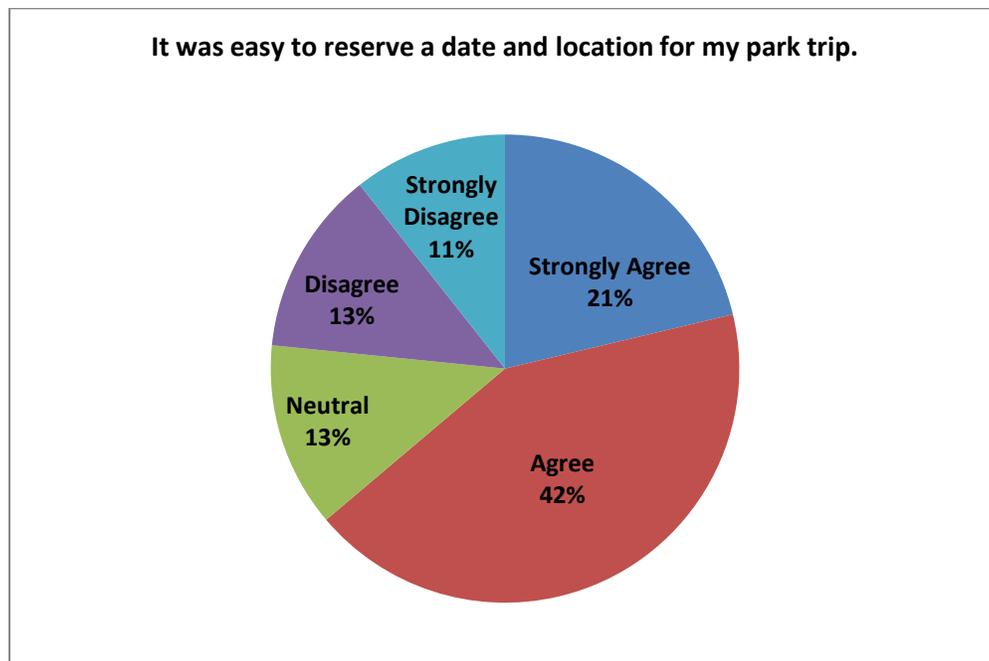
Park Trips: Park trip scheduling has consistently been one of the most challenging aspects of KHOC since program inception. To streamline processes as much as possible, Parks Express (the EBRPD department that schedules buses) came to KHOC teacher orientations to answer questions about how to get a bus as quickly as possible.

However, in recent years, with increasing market competition for transportation services, the process of booking buses for KHOC it has become even more challenging (e.g., technology companies that pay top dollar for commuter transportation for their employees).

As an alternative, some KHOC teachers go through their own district channels to book a bus, and then are reimbursed by KHOC for that cost. **One third** of survey respondents (N=12) chose to *go through district channels to obtain a bus*.

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.). Overall **64%** (N=30) Agreed or Strongly Agreed that it was easy. One teacher remarked, *“I was impressed that any time I called either the bus or trip reservation people, they always got back to me. Synchronizing the naturalist trip and the bus reservation was a little tricky, but both sides were quite helpful, and I was able to do it.”*

However, **23%** (N=11) did *not* find it easy.



There were times when a KHOC teacher booked a trip on a certain date, and EBRPD could not find a bus for that date.

- *I had to go over Thanksgiving break, this was the only one in Oakland.*
- *The bus transportation was difficult to organize, and so the third grade classes had to go at different times (months apart).*
- *It was not easy, and it was during my winter vacation that I had to arrange everything, for many many times of emails and calls. I hope that can be improved.*
- *We gave the number of students and adults going on the trip and then the day of the trip the bus driver said that there was not enough room for the adults - who then had to drive! Also we had to reschedule due to rain and had to make too many phone calls. And my name was not in the system even though I went to the orientation - which made scheduling and rescheduling more difficult.*
- *The dates became available during our schools spring break and filled up sooooo quickly. It was very difficult to find a day that two classes could go and both have a naturalist. As well as a time that worked for us as we had to travel by bus in rush hour traffic.*
- *I requested a guide and then no one helped me figure out what to do next. There was no bus and it was confusing. Then I reserved a bus to Crab Cove and no one told me it was closed on that date. That was poor planning and coordination.*

I really appreciate the program and am grateful it includes bus transportation. Our school does not have any funds for field trips and the cost of buses is very expensive. The free bus transportation allows us to be able to easily plan these trips and get our students out in nature.

~A KHOC Teacher

Many excellent suggestions for improving processes were made this including several comments that **there should be a calendar with the available dates and programs** that teacher could just sign up for.

Others included:

- *This was the hardest part of KHOC. A few things would be helpful. 1. Clear cheat-sheet with dates (when we can start requesting buses and the window in which we could use them). 2. Quicker turnaround about whether we get a bus. I put in a request for May and waited months to find out if I got it. Made it hard to plan with parents and get our field trip paperwork in. 3. Hard to plan with naturalists with the bus scheduling. 4. Another thing that would be super helpful for teachers is a cheat sheet about any dates parks' visitor centers are closed (like Coyote Hills M & T, I think). 5. Might also help to provide a suggested flow chart: - call regional park to find out days best to visit - check naturalist availability? - request bus - put in field trip paperwork (even if date might change??) not sure exactly what it should be but that kind of thing might help.*
- *It would be a smoother transition if we could sign up for trips at the orientation.*
- *Give KHOC priority at Ardenwood 2. Expanded bus availability.*

Teacher Orientation: EBRPD asked all teachers to attend an orientation in the fall, even if they had participated in KHOC before. (Previous participants could attend a shorter orientation.) This was to train teachers on new self-guided trip options.

Most (**85%**) of respondents Agreed or Strongly Agreed with the statement, *the teacher orientation in fall 2017 prepared me to implement KHOC in my classroom.*

However, **15%** of respondents (N=7) were Neutral. One teacher noted, *“My only comment would be to have separate trainings for teachers who have already done the program and new teachers.¹⁴ I didn’t take much away from the training this year as I have done the same last year.”*

Another remarked, *“The weekend training was too long. I was frustrated by the length, especially on a school holiday week.”*

KHOC Website and Facebook Page: KHOC has maintained a website for several years, and in school year 2016-17, 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.

Most (**63%**) had used one or both of these sites, although overall, only three survey respondents indicated they had used the Facebook page. One third (**36%**) did not use either site. These numbers are nearly identical to school year 2016-17, and the Facebook page continues to be underutilized. One teacher remarked, *“Just needs more people on it to make it more useful.”*

KHOC Website	57%
KHOC Facebook page	2%
Both Website and Facebook page	4%
Neither	36%

A suggestion for improving the website was: *“I couldn’t find the map that went with lesson 1. Maybe have a special tab for the lessons. Maybe it was there and I just missed it.”*

¹⁴ This is, in fact, an option for repeat teachers.

VIII. Lessons Learned & Recommendations for the Future

After six years, KHOC is now 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 again 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 processes that can be improved so barriers to participation are minimized.

In this spirit, we explore **recommendations** for the upcoming school year.

Orientation: Survey results showed that some items could be promoted, or made clearer, during the mandatory KHOC teacher orientation at the beginning of the school year.

First, only 19% of survey respondents used the new Spanish-language kids KHOC this year booklet – it could be promoted more widely. Next, several teachers remarked that some of the activities in the KHOC curriculum (aligned with the California Children’s Outdoor Bill of Rights) are difficult to do in the classroom – for instance, fishing and swimming. However, EBRPD’s Outdoor Recreation department conducts fishing programs for school groups. These could be promoted during orientation.

Lastly, as discussed below, new processes for scheduling trips, as well as KHOC’s new focus on promoting self-guided trips, need to be key topics during orientation.

I want to go camping here!

Ooh look, you can go swimming here!

~ KHOC students

Park Trip Improvements: The process for requesting buses for park trips, and scheduling trips, remains confusing, and has been compounded over the past two years due to transportation issues outlined in Section VII. Some teachers cannot get transportation on the days they prefer. (In future years of KHOC – 2020 – EBRPD will be combining the two separate online forms that are currently needed to request a naturalist and for bus transportation into a Universal on-line request form, simplifying trip planning).

EBRPD does not expect competition for buses in the East Bay to significantly improve this year, so will continue to remind teachers that it can 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, on the KHOC website, and through email blasts throughout the year.

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.

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

Moreover, with participation in KHOC by a teacher now limited to three years, EBRPD has begun to promote self-guided trip options during orientation so that teachers have alternatives to naturalist-led programs.

Not only does this provide an option for teachers, but providing resources and guidance for teachers to lead their own trips is a *key KHOC goal*. As discussed, below, EBRPD seeks to help teachers become more skilled *teaching outdoors on their own*.

Self-Guided Trips: KHOC's intent is that in a teacher's first year of participation, 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.

Grant-funded KHOC "Teacher Kits" are available to support self-guided trips at four parks. This year, about 25% of survey respondents indicated that they used these materials, up from 20% in 2016-17.

Kits are available for teachers to check out at locations with Visitor Centers. This process worked well for some, but other complained about having to go out of their way to pick up kits at other parks. A takeaway expressed by most of the teachers who used them is to have *more kits available at more locations*. Another idea is posting a naturalist video on the KHOC website to help teachers use the kits, and provide the self-guided trips.

Promoting self-guided trips during the KHOC orientation 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, 36% of teacher survey respondents did not use either the KHOC website or Facebook page for program information (only 2% used the Facebook page). These resources need to be continuously promoted in communications with teachers.

It's a great program to get kids outdoors and to learn about nature. Kids nowadays are stuck inside too much and on screens too much. They need to be outdoors more, it's good for the body and mind. I'm at a title I school and it is very expensive to get a bus so it is absolutely great that the program offers a bus otherwise it would be very difficult for my students to get out in the nature.

~A KHOC teacher

KHOC Alignment with Curriculum Standards: New, rigorous science standards – *Next Generation Science Standards for California (California NGSS)* – are currently being adopted by districts at varying paces. Almost 75% of survey respondents this year were at least familiarizing themselves with new standards.

I feel this is an extremely useful program to introduce teachers to the parks nearby. I certainly went to a park that I didn't know existed.
~A KHOC Teacher

In February 2019, the Alameda County Office of Education will be training EBRPD interpretive staff on NGSS and how to incorporate it into programs. This will help the KHOC team to update the curriculum to better align with new standards for the 2019-2020 program year. Teachers should also be encouraged to share their specific recommendations for improving alignment.

KHOC Translations into Different languages: Cantonese and Mandarin were the most commonly requested KHOC student booklet translations this year (the Spanish booklet having been released in Fall 2017). Based on resources available, KHOC may consider new translations in upcoming years.



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 2018-19.

EBRPD will continue its focus on helping teachers learn to independently lead nature experiences for their students, and 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.

Thank you to KHOC funders!

- The Regional Parks Foundation*
- Kaiser Permanente*
- Andeavor Community Investments*
- Alameda County Fish and Game Advisory Committee*
- Contra Costa County Fish and Wildlife Commission*

And for support and inspiration from:

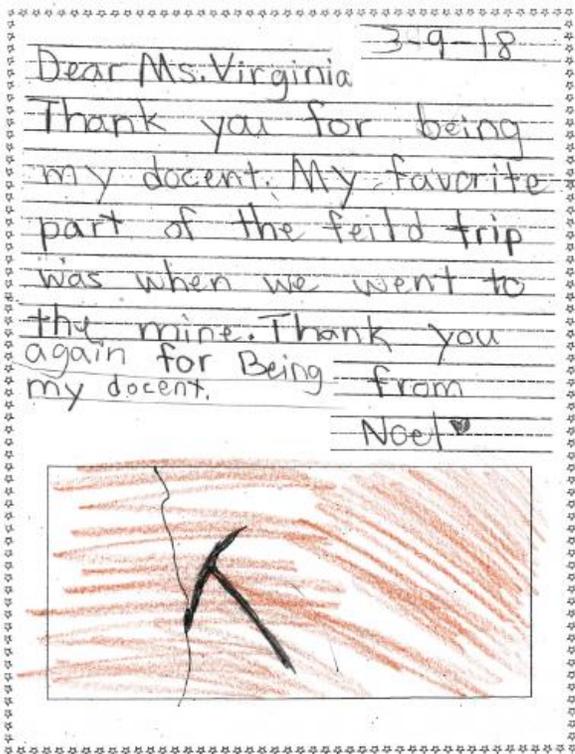


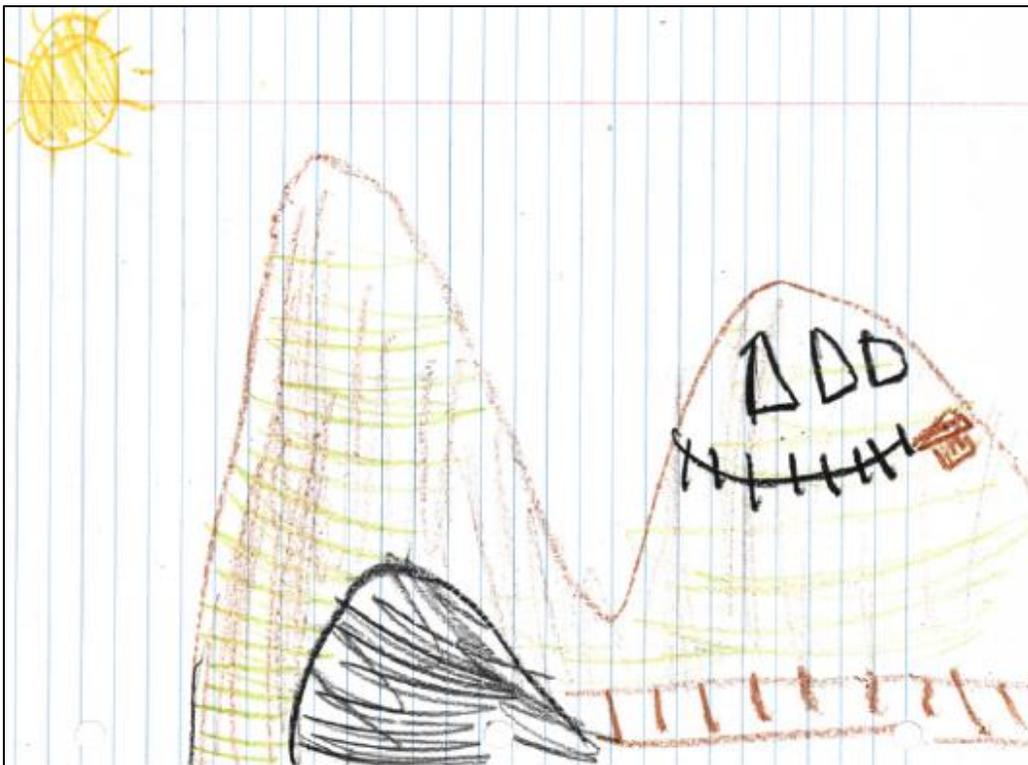
**Kids Healthy Outdoors Challenge (KHOC)
2017-2018 School Year**

ADDENDUM: KHOC Student Artwork

At the end of the school year, some teachers asked their students to write or draw what they remembered from their EBRPD park trip. We received some wonderful student artwork and letters, such as these contributions from students at Sun Terrace Elementary in Concord who went to Black Diamond Mines, and from students who went to Tilden (Peralta Elementary School in Oakland) and Crab Cove (Achieve Academy in Oakland).

Black Diamond Mines Letters & Art

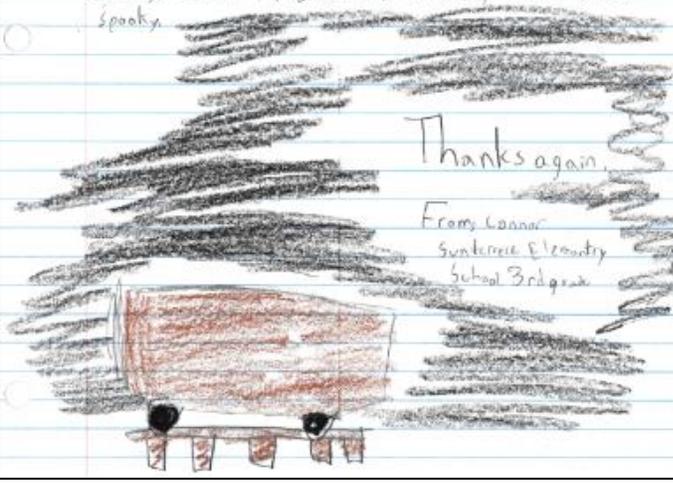




Thursday, March 8, 2014

Dear Kevin,

Thank you for letting us come to Black Diamond mine. My favorite part of Black Diamond mine was the tour. I also liked the cemetery. I know that the nickname of coal is "Black Diamonds." I heard that it is dangerous to work in a coal mine. I liked learning about Sumner's history and the mine's history. It felt good to walk into a mine and see a cemetery. I also liked how the cemetery was kind of spooky.



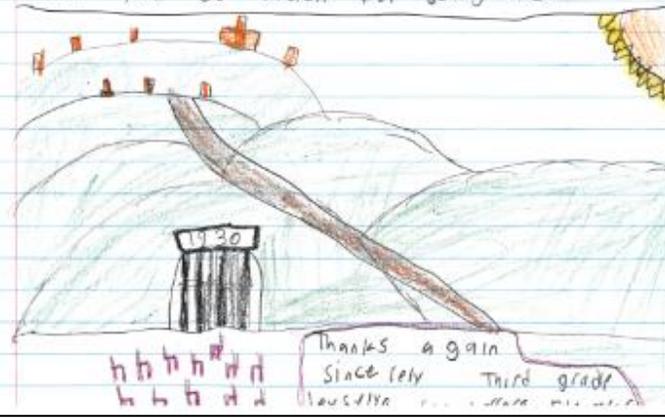
Thanks again,

From Connor
Sumner Elementary
School 3rd grade

Dear Kevin

Thursday, March 8, 2013

Thank you for taking us go I really like going. It was my first time going under ground that was my favorite part. I learned a lot of stuff of history and it was was so much fun. I also learned that kids had to work and I saw a small farm I think it was a farm. I liked it because it had a lot of cool stuff and the coolest flip flip ever because it was under ground. Thank you for giving us a tour and showing us the stuff that are inside the big big big rock. I really enjoy it thank you so much for doing us.

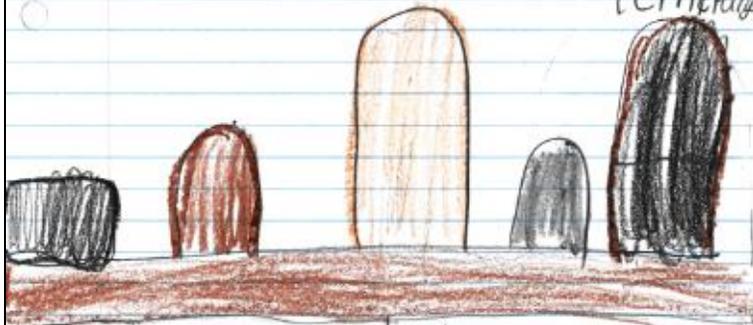


Thanks a gain
Since Iely Third grade

Miranda 2018 Thursday, March 8, 2018

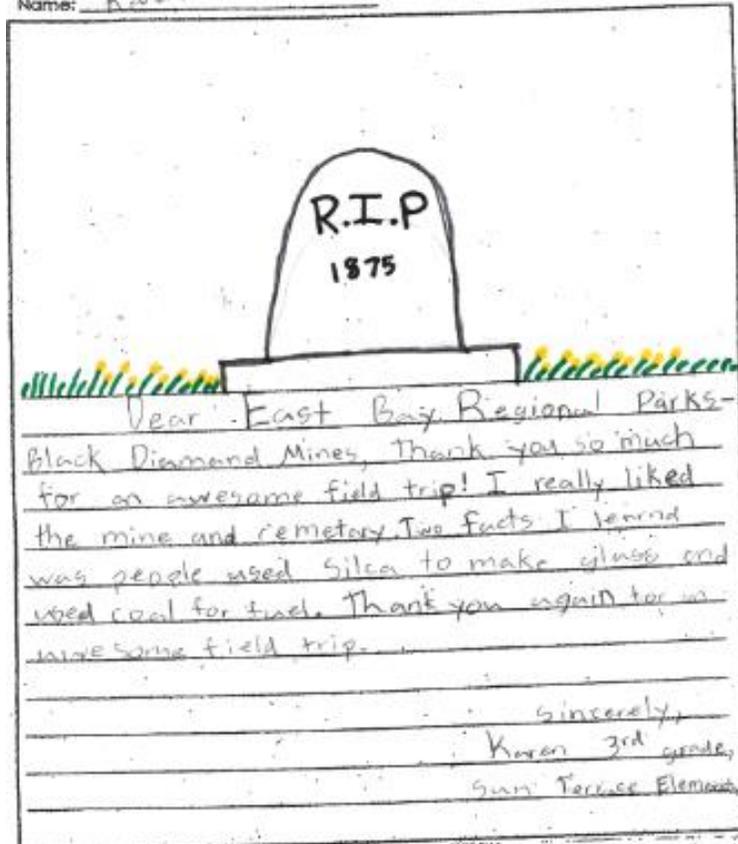
Dear Kevin,

Thank you for taking us on
tour of Black Diamond mines. My
favorite part it was the sand rock.
It was fun showing us the
sand rock the Diamond in wall.
I love the cemetery, Is Rosti Hill
a place. Also, I saw three horses.
I like the helmet and flashlight.



Love
Miranda
Sun Terrace Elementary
Third Grade

Name: Karen



Dear East Bay Regional Parks-
Black Diamond Mines, Thank you so much
for an awesome field trip! I really liked
the mine and cemetery. Two facts I learned
was people used silica to make glass and
used coal for fuel. Thank you again for us
have some field trip.

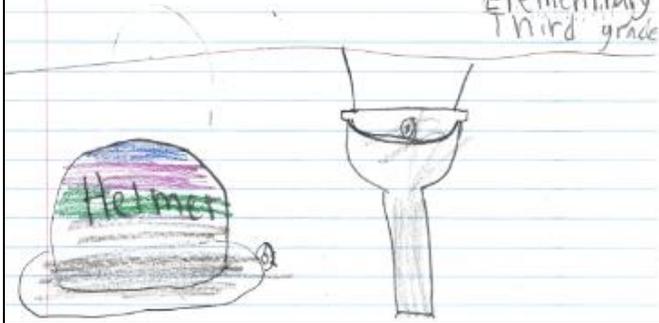
Sincerely,
Karen 3rd grade,
Sun Terrace Elementary

Thursday, March 8, 2018

Dear Kevin,

Thank you for taking us on a tour of Black Diamond Mines. I learned that there were ghost shrimp. My favorite part is when you showed us the marks from the other creatures under the water. I liked when you made us breath in and out. Finally, my other favorite part was when you reached us and the helmets and flashlight.

Sincerely,
Isabella
Sun Terrace
Elementary
Third grade

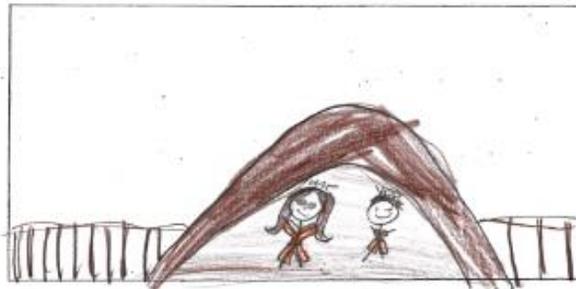


Dear Mr Kevin

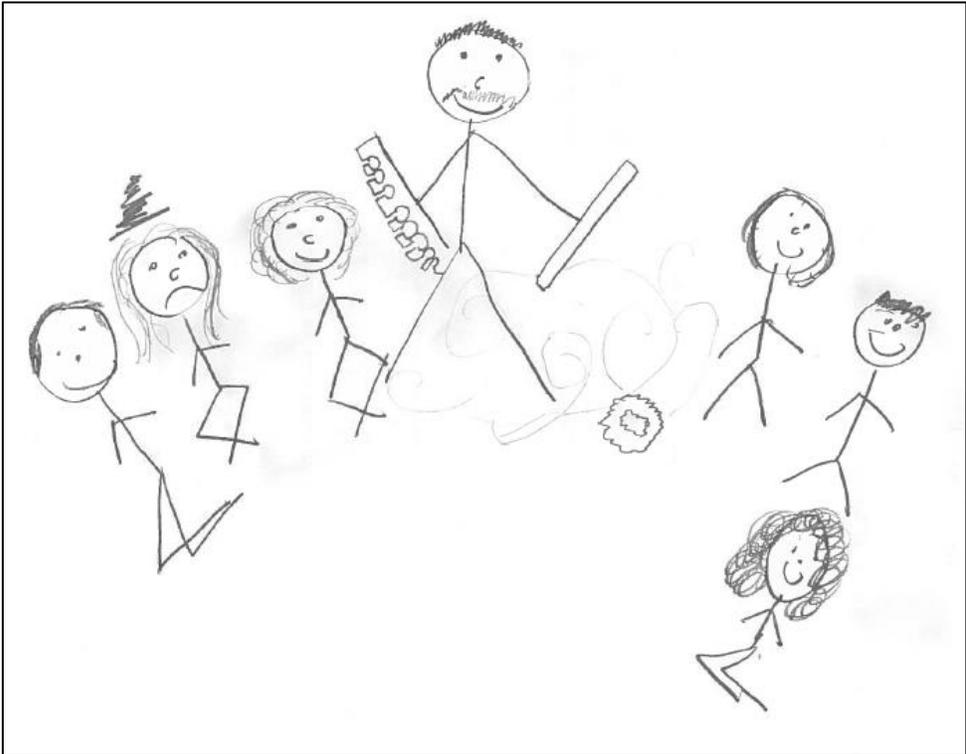
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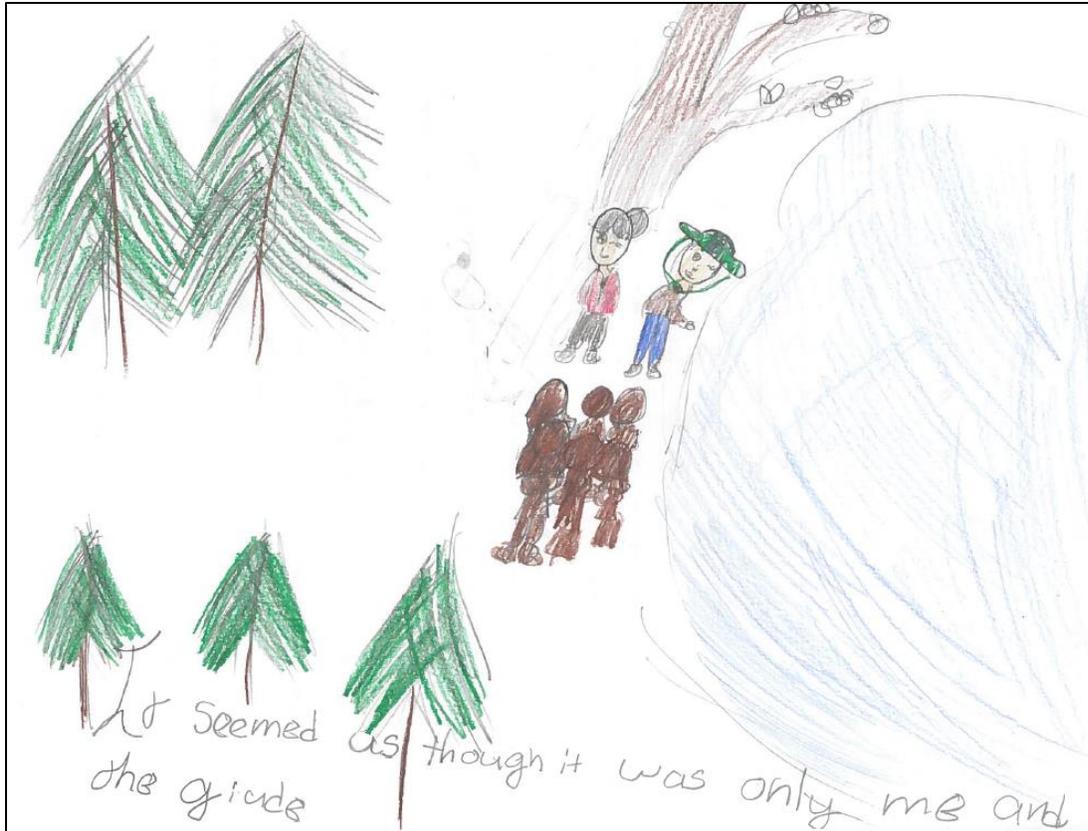
Thank You for showing us around. I learned that you mark glass at of cote. My favrite part was when we went inside the min. Thank you again for showing us around.

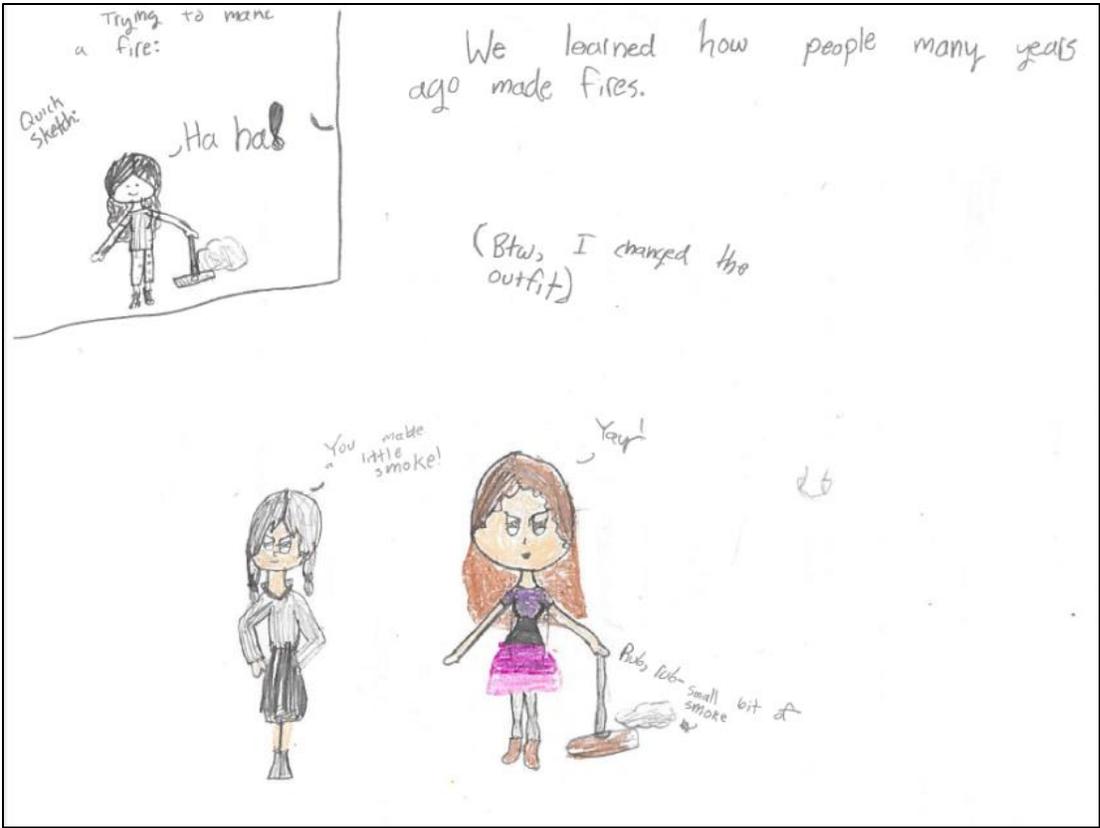
From
Kyle White

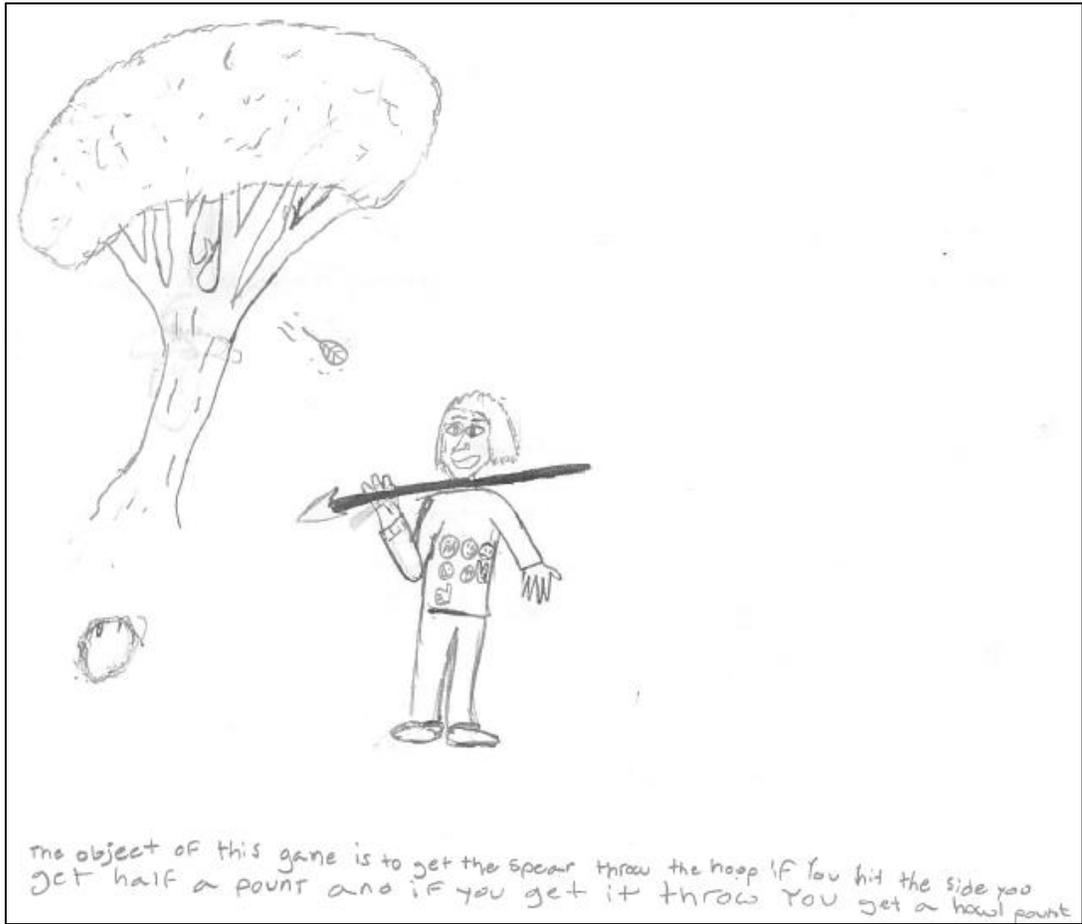
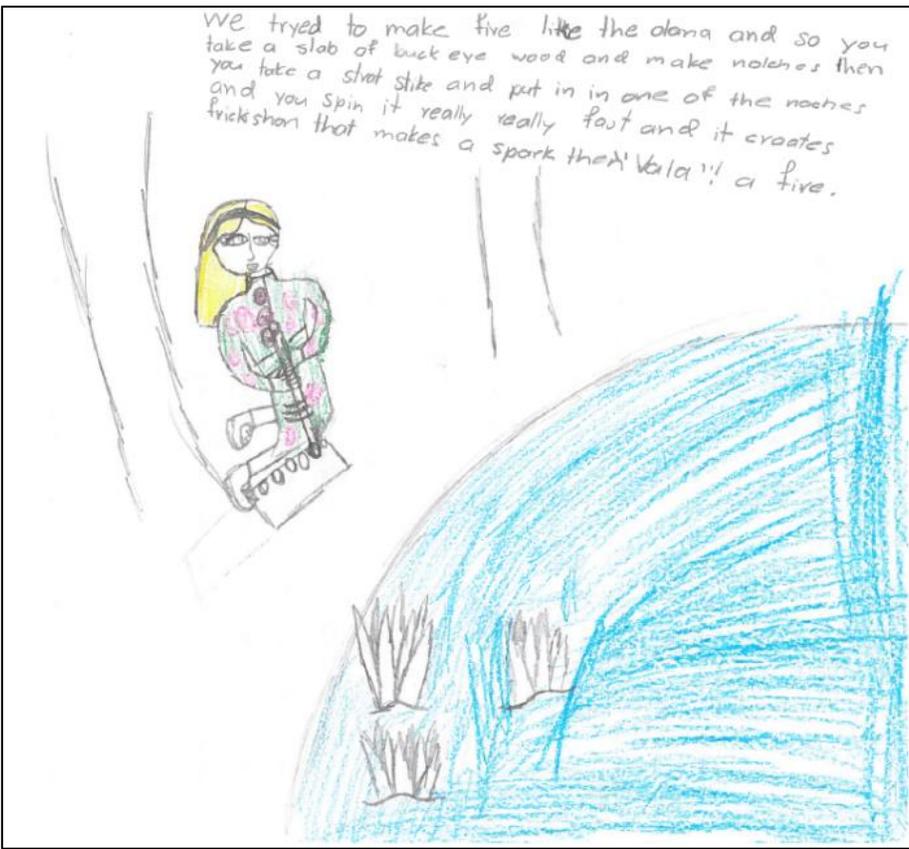


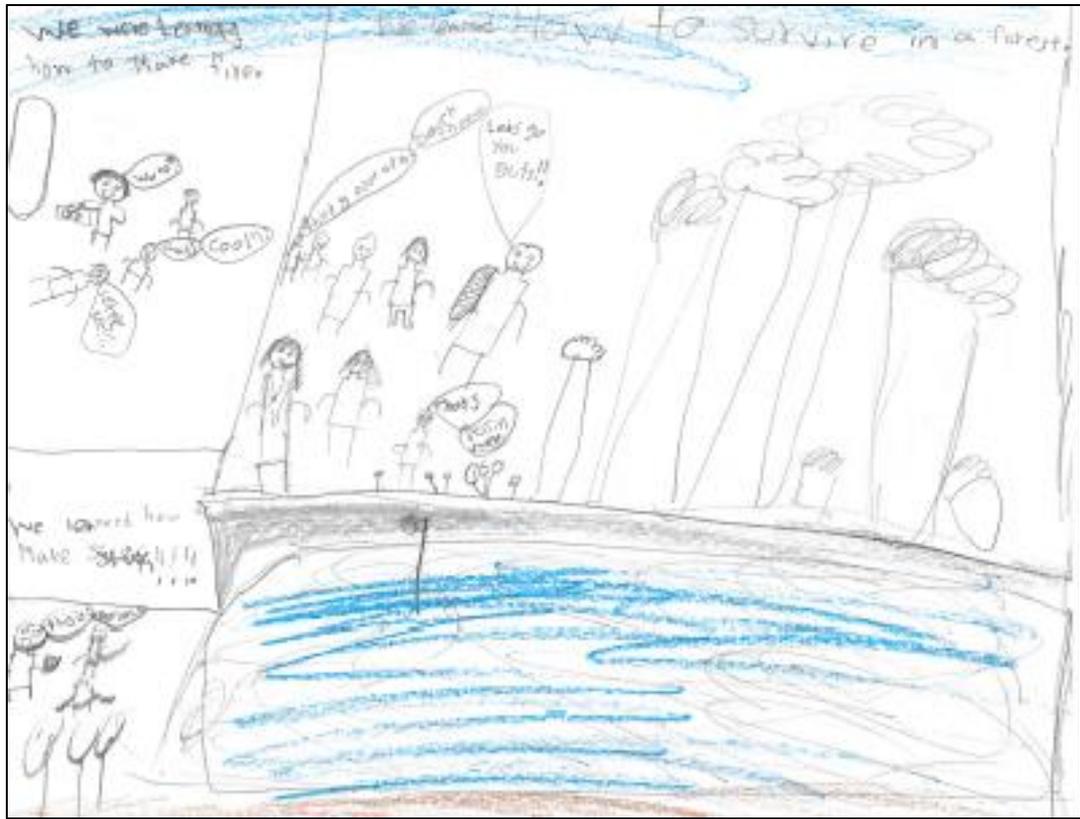
Tilden Park Art











Crab Cove Art

