Kids Healthy Outdoors Challenge

Let’s Explore Outdoors!

- Follow a Trail
- Go Boating
- Explore Nature
- More Activities Inside!

This book belongs to: ____________________________
To parents, teachers and guardians:
The East Bay Regional Park District is a national leader in the U.S. for the Healthy Parks Healthy People movement – an international initiative emphasizing the critical role outdoor activity plays in improving individual and community health. Taking care of parks and open space is important for the well being of wildlife and our community. We hope your class and family will enjoy exploring parks together, and will discover the health benefits – and joys – of being outdoors!

To our young visitors:
We want to make it easy for you to enjoy nature and the outdoors. We hope you’ll have fun completing these activities in the classroom and outside. Check out the Regional Parks Family Guide at the back of this booklet, and come to the parks with your family!

For everyone in our community:
The Kids Healthy Outdoors Challenge is based on the California Children’s Outdoor Bill of Rights, which recommends children engage in outdoor activity and understand the opportunities they have in their own backyards to do just that.

Many studies show that children who participate in outdoor activities are healthier, do better in school, have better social skills and self-image, and lead more fulfilled lives. The Outdoor Bill of Rights proclamation – established by the California Roundtable on Recreation, Parks and Tourism – recommends ten outdoor activities that every child has the “right” to experience before the age of 14.

We hope you’ll find that East Bay Parks have all the resources you’ll need to stay healthy, and enjoy the outdoors.

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Get Outdoors!
Outdoors Agreements
When you’re outside, agree to:

1. **Leave it where you found it:**
   - Animals: Report injured animals to a ranger and don’t try to help them yourself. Watch and observe animals instead of touching, scaring, or chasing them.
   - Plants: Smell flowers and watch insects drink nectar but please leave the wildflowers living on the plant for wildlife.

2. **Stay on trails:** Walking off the trails can cause erosion and can be dangerous. Check maps, read signs and stay out of closed areas. Don’t take shortcuts.

3. **Keep it clean:** Take home everything you bring into the parks. Trash belongs in trash cans—don’t litter.

4. **Be safe around water:** Stay out of the water unless you’re at a posted swim area and a lifeguard is on duty.

5. **Watch your pets:** Dogs must stay in areas where they are allowed. Follow all leash laws. Where dogs are allowed off-leash, make sure they can hear your voice and your commands. Also, make sure you keep your pet from disturbing wildlife and digging holes. And of course, pick up their waste and put it in the trash.

Additional information and maps are available at www.ebparks.org.
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Lesson 1
Connect with the Past

Why do We Learn About the Past and Different Cultures?

Learning about the past and history is important because it helps us understand ourselves, our surroundings, and how we came to be the way we are. Everything happening in the world today is connected to the past, and to the decisions and lives that came before us. We must know about the past and the worlds’ cultures to really understand the present - what is happening now.

In our region, some of the major tribes were called the Ohlone, Yokuts and Bay Miwok. They have left many traces, all around us. “Culture is a person’s way of life. Every different group of people has a culture. Even though some things are the same in different cultures, many things are also unique from culture to culture.”

The first people of the United States are often called Native Americans or American Indians. Even though they are called by one name, there were hundreds and hundreds of American Indian cultures. In fact, in California alone, there were probably over 1,000 different groups of American Indians.*

1. Girls in period costumes at Ardenwood Historic Farm.
2. Ohlone girl wearing traditional dress.
3. Kids can use traditional and non-traditional Ohlone tools at the Gathering of the Ohlone Peoples in Coyote Hills Regional Park.

* (Content author Beverly Ortiz)
Lesson 1... Connect with the Past, continued.

History is all Around us if We Just Know Where to Look!

A historic site I’ve been to in California:

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• A food that is made from the seeds of various grasses.

• A plant that is grass-like and grows in marsh areas of California; Miwok, Yokuts and Ohlone often used it for many different things, including to make roofs, boats, and clothing.

• A seed from the oak tree that the Ohlone and Miwok people used to make soup, mush (a thick soup), or bread.

• A tree that provided acorns, a major source of food. We can find many of these in our local East Bay parks.

• A tool used to crush and grind seeds to make food.
Lesson 1... Connect with the Past, continued.

Five new things I learned about Connecting with the Past are:

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Check out the Regional Park Family Guide in the back of this book to find out about more historic places you can visit, right in your own backyard!
Lesson 1… Connect with the Past, continued.

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Write a paragraph explaining three ways your life today is similar to the life of an Ohlone and Miwok person.
Lesson 1... Connect with the Past, continued.

Draw a historic object from a historic place you have visited.

Dinosaur Museum
Lesson 2

Play in a Safe Place

Kids Around the World Love to Play Outside

Throughout history, children have often found many ways to play outside. For example, American Indians native to the Bay Area had many ways for children to play. “Ohlone, Bay Miwok and other American Indian peoples had many fun games and toys. Sometimes parents made toys, dolls, and game pieces, for their children. Sometimes children made these things themselves, using leaves, stones, sticks and other natural objects.”*

1. Pomo style animal toy and ring-and-pin game.
2. Ohlone people’s descendents dressed in traditional clothes.

* (Content author Beverly Ortiz)
Indian children’s games were similar to present day youth games, except that they often related to animals and nature.

**Preparation:** Select a clear, flat, circular location approximately 12 feet in diameter.

**Rules:** One child will be “It” (“Coyote” or “Kiyu” in Yokuts language). The Coyote has to sit on the ground and cannot get up. Coyote partway shuts their eyes, but it is all right to peek.

The other children will be “Little Birds” (“Goldfinches” or “Taw-taw-its” in Yokuts language) who will “fly” around. They are to run around and touch Coyote with their hands without being “caught.”

Coyote will try to catch the Goldfinches by touching them. When Coyote touches a Goldfinch, the bird is now considered “caught.” The caught child sits on the ground behind the coyote. The game continues until all of the children have been caught.
Lesson 2... Play in a Safe Place, continued.

Play and Explore Outside!
Find these items outside (but leave them where you found them!)

- 3 different kinds of leaves
- a seed (acorns are seeds too!)
- an animal
- a park sign
- a bench
- a path
- an insect

What is the difference between playing outside and playing inside?

---

Oak leaves and acorn

Dragonflies

White-lined sphinx moth
Lesson 2... Play in a Safe Place, continued.

Ecology Note:
“Leave No Trace” means to leave things as you found them – don’t take anything, don’t leave anything. It is very important to practice “Leave No Trace” anytime we are outside.
Lesson 2... Play in a Safe Place, continued.

What is Your Favorite Outdoor Game?
If you were asked to list the rules of your favorite outside game, what would they be?

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Build A Kite

Kite Material List

- **Kite Body**: A sheet of brightly colored 8 1/2” x 11” multipurpose printing paper.
- **Kite Spine**: A coffee stirrer or an 8” bamboo barbecue/shish kebob stick.
- **Kite Tail**: Eight feet of fluorescent surveyor’s flagging plastic tape (available at any hardware store), or spiral cut an entire plastic bag into a 1” wide piece.
- Masking tape (1/2” wide) or any type of plastic tape.
- One roll of string. (At least 200 feet.)
- A 1” x 3” cardboard square on which to wind the string.
- Scissors.
- Hole punch.

Kite Flying Tips:

- Bring scissors with you to the park so you can cut knots and tangles, then re-tie the string and keep flying.
- If one side of the kite gets crunched, crunch the other side to maintain the kite’s balance.
- On windy days, a longer tail will help balance the kite.

Kite Assembly Directions

1. Fold a sheet of 8 1/2” x 11” paper in half to 8 1/2” x 5 1/2”.

2. Fold the top sheet diagonally. This diagonal line can be determined by making a mark at the kite’s top, 1” from the existing fold. Then make a mark at the kite’s bottom, 3” from the existing fold, and draw a line between these marks as your fold guideline.

3. Place tape firmly along your diagonal fold line. (The fold stiffens the paper and acts like a spine so no stick is needed here.)

4. Place your barbecue stick from corner A to corner B and tape it down firmly.

5. Tape 6 to 10 feet of plastic ribbon to the narrow, back end of the kite at C.

6. Flip kite over onto its back and fold the front flap back and forth until it stands straight up. Punch a hole in the flap at D, about 1/3 down from the flap’s top corner E. This hole can be reinforced with a piece of tape. Tie one end of the string to the kite’s hole and wind the other end onto the cardboard string winder.
Lesson 3

Explore Nature

Why do We Explore Nature?

When we spend time outside in nature, we use our senses more. We smell a pine tree, feel grass under our feet, hear the call of an owl. Nature teaches us to pay attention and ask questions about what’s around us, which means we are always learning! It gives us the opportunity to move our bodies, and also relax, which helps us to be healthier.

World in a Box

• Remove the bottom end of a shoebox or other small cardboard box. Have an adult help you use scissors to cut it out.

• Take the box outside. Look for an area on the ground with plants and other living things. Place the box there on the ground carefully.

• How many types of plants, insects or other discoveries can you find inside your box?

• P.S. Leave all the plants and critters at the park when you’re done.
Draw some of your “World in a Box” discoveries inside this box:
Your nature drawings are just for you — to record details and learn about nature.
Lesson 3... Explore Nature, continued.

Choose one object from your World in a Box. Draw a picture of the object.
Write a detailed description of the one World in a Box object you drew. Include at least five details. Which detail was the most surprising to you?
Lesson 3... Explore Nature, continued.

Knock! Knock!

Listen for a working woodpecker. Can you hear it tap-tap-tapping away? Light tapping followed by silence means the bird is hunting and listening for insects in the wood. Louder tapping may mean the bird is working to make a nest hole. You may even hear a woodpecker drumming to proclaim its territory. To make this long distance sound, the bird will select a dry limb and tap rapidly, building up to a loud drumming, then tapering off.

Cricket Thermometer

A cricket makes a great thermometer because it chirps according to the temperature. The colder it is the slower the cricket chirps, and the warmer it is the faster it chirps. You can figure out the temperature in Fahrenheit degrees. Using a watch with a second hand, count the number of cricket chirps you hear in 15 seconds. Add 40 to this number and you will know the outdoor temperature!

Do the math:

____ chirps + 40 = Degrees Fahrenheit

Health Note:

Make sure you drink lots of water in warm weather. If it is hot out, drink even if you don’t feel thirsty. When exercising, your body loses moisture through your skin and it loses moisture fastest in hot weather.
Why Do Birds Have Different Beaks?

All animals have adaptations, which is a feature or behavior that helps an animal survive. The type of beak a bird has depends on what kind of food it usually eats.

- A bird that lives near a shoreline (where water and land meet), sometimes has a long straight or curved bill to catch small creatures in the mud or water.
- A short stubby beak on a bird means that it lives on land and eats mostly seeds.
- A bird with a long, thicker beak might search for food out in deeper water, where there are bigger creatures to eat (such as fish).
- Birds with straight, sharp beaks sometimes hammer into trees to find insects.
- Birds with sharp, curved, hook-like beaks eat animals and tear apart their food.

Bird Bill Match

Match the bird with the type of food it eats. **Hint:** use the facts you read in “Why Do Birds Have Different Beaks” to help you.

A. This bird uses its bill to find food by hammering holes into bark and then removing insects with its long and flexible tongue. A: ______

B. This waterbird sweeps its bill from side to side along the water’s surface, picking up tiny aquatic animals, insects, and floating seeds. A: ______

C. This bird uses its bill to catch fish when diving from flight. A: ______

D. This bird uses its bill to feed on seeds. A: ______

E. This bird uses its bill to eat insects, small birds, and rodents. A: ______
Lesson 4

Follow a Trail

Get Moving Outdoors by Following a Trail – You’re Sure to Discover Something New!

Walking or hiking on a trail can be fun, interesting, and good exercise. It gives us a chance to be outside with plants and animals, learn new things by observing the surrounding environment, and feel good because we are being active!

Top Trail Tips!

• Go with an adult.
• Bring water and supplies - such as snacks, comfortable clothes, sunscreen and a hat.
• Pick up a map at the starting point or staging area.
• Stay on the trail! Plan ahead: it takes about one hour to hike two miles on flat ground.

Where I went: __________________________________________

My favorite part was: ____________________________________
Be an Animal Detective

When you are hiking in the parks, look for animal tracks and see if you can identify what animal made them. Muddy areas around water, sand, or soft dirt will be good areas to look. Even hard, dried dirt may have an old track imprinted in it. Can you guess where the animal was going or what it was doing?

Match the Animal to its Footprint

Draw a line from each animal track description to its matching animal track picture.

- **Raccoon** (long back feet with small, hand-like front feet to help them pick things up)
- **Deer** (hooves, to allow them to run over different types of ground)
- **Coyote** (paws with soft pads, to help walk quietly when trying to catch prey)
- **Mouse** (paws with soft pads, to help run quietly when trying to avoid predators)
- **Duck** (webbed feet for swimming and walking in water)
- **Great Blue Heron** (four toes that are widely spread, to help it walk on muddy surfaces)
- **Human** (shoes are often worn outside!)
- **Wild Turkey** (three toes with sharp claws, allowing it to dig for insects and plants to eat)
Lesson 4... Follow a Trail, continued.

Human Adaptations

Write in words... What characteristics do human feet have? Choose three characteristics and, in a paragraph, explain why you think humans have these.

Example: one characteristic of a human foot is toenails. I think people have toenails on their feet because it protects our toes from harm.
Lesson 4... Follow a Trail, continued.

Draw Yourself Using a Park Trail!
Lesson 5

Plant a Seed

Trees, Grass, Flowers, and Vegetables all come from Seeds.

Do you know that within every seed lives a tiny plant or embryo?

In your hand you can hold seeds that could become 50 apple trees, many oak trees, or an entire meadow! All you have to do is take a seed, plant it at the right time, and give it the correct amount of water and sunlight. It will do the rest, growing into the plant it was meant to be.

Ecology Note:

Some plants are natural or “native” to the local environment. However, many plants you see came from someplace else, even from the other side of the world. Many of these plants traveled as seeds attached to animals, and some were purposefully brought by people. Some of these non-native plants do not harm the environment but many of them do cause damage. When you are hiking or visiting another place, be careful to leave the seeds behind where they belong.

Seeds are planted by people or scattered by the wind, animals, or water.

The seed coat splits and sends out a root, a shoot and the seed leaf.

Life Cycle of a Plant

The flowers make seeds.

Flowers bloom on the plant.

The roots, stem, and leaves continue to grow.
Lesson 5... Plant a Seed, continued.

How a Seed Becomes a Plant

A seed embryo begins to germinate or sprout when all the conditions are right; it has enough water to absorb and soften, it is in the right kind of soil, it has air, and it has just the right amount of sunlight or darkness.

First the seed sends downward a small root called a **radicle** to absorb water. Next, a shoot called the **plumule** begins to grow upwards in search of light and air. Then the seed leaf or **cotyledon** appears.

**How to Dissect a Seed**

1. Start by soaking a lima bean in water overnight. The soaking allows the seed leaf to absorb water and will soften the seed coat (or testa). A seed coat protects the embryo (the inside) from drying out and from injury. A testa can be thin and soft like that of a bean, or it can be hard and thick like that of a coconut.

2. In dissecting your bean, begin by first removing the softened seed coat (the testa) from the outside of your bean. The energy for the seed to grow is stored underneath the testa in the **endosperm**.

3. Now open up the seed. Use your fingernails to split it down the middle. Can you see the different parts of your lima bean? Can you find the cotyledon, the root, and the plumule?
Lesson 5... Plant a Seed, continued.

Draw Your Seed
Draw your dissected seed and label its parts like the example on page 29.

What do You Think...
would happen if you planted a seed that was missing a part? Explain why you think this would happen.

Can you see the different parts of your lima bean? Can you find the cotyledon, the radicle, and the plumule?
Lesson 5... Plant a Seed, continued.

Draw and label at least five different types of plants that grow in your neighborhood:

In my garden I would plant these types of fruits and vegetables:
Choose at least five fruits and/or vegetables. Explain why you would choose these to plant.

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Lesson 5... Plant a Seed, continued.

Four things that make a seed grow are:
(Clue: read “How a Seed Becomes a Plant” on page 29.)

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If I could be any kind of plant, I would be...

Why?

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Draw the kind of plant you would be:
Lesson 6
Camp Under the Stars

Plan a Camping Trip With Your Family and Friends

Whether you camp in your backyard or in a park, you’ll have an adventure to remember! See the Regional Parks Family Guide at the back of this book for ideas of where to camp in East Bay Regional Parks!
Lesson 6... Camp Under the Stars, continued.

Things I’ll Want to Bring on My Camping Trip:

- Tent or/and a tarp
- Sleeping bag or blankets
- __________________________
- __________________________
- __________________________
- Food for meals
- Healthy snacks
- __________________________
- __________________________
- __________________________
- Water bottle
- Flashlight
- __________________________
- __________________________
- __________________________

When You Go Outside Tonight...
Draw the moon you see.
What kind of moon do you think it is?

The Eight-Phase Lunar Cycle
Go on a Nighttime Animal Hunt!

There are all kinds of animals to see at night while camping... a bull, a hare, a ram, even a great bear! These animals, of course, are star constellations. A constellation is a pattern of stars that take on a shape, such as an animal, if you “connect the dots” or stars in the sky. There are also ancient stories that go with each constellation. You can tell these stories around the campfire or make up your own.

The Big Dipper is shaped like a ladle with a handle and a bowl. It is probably the most famous constellation and it is easy to find.

The Big Dipper is an asterism, part of the officially recognized constellation called Ursa Major or the Big Bear. If your eyes are really keen, you can see two stars close together in the handle. The fainter star is called Alcor and the brighter star is called Mizar.

If the stars are connected it looks like a ladle or a “Big Dipper.” Connect the stars above to see it.
Ursa Major, the big bear constellation, looks like this in the sky.

Connect the stars in this box to see the outline of the big bear.

Do you see it?

(Hint: If you can find the Big Dipper you will find the nose, top of the head, and back of Ursa Major.)
Identify an Animal Constellation
Write an acrostic poem for that animal.
Each line should describe your animal constellation.

An acrostic poem:

LION
Loyal
In Africa
On the hunt
Nature King

Etymology Note:
The word “acrostic” comes from the Greek language. The Greek work for “end” is “akron” and the word “stikhos” means row or line of verse. Put the two words together and you get the meaning of acrostic: a poem, word puzzle, or other composition in which certain letters in each line form a word or words.
Lesson 6... Camp Under the Stars, continued.

Draw a Constellation
Make up your own constellation and connect the stars to see the outline.

The name of my constellation is: _______________________________
Bike Riding is Fun, and Great Exercise!
Why is exercise so important? Children need 60 minutes of play with moderate to vigorous activity every day. Exercise can help people avoid disease and sickness. It builds muscle, strong bones, and prevents obesity. Plus, it’s fun! Try dancing, running, biking, swimming, canoeing, playing basketball or other sports, and hiking to new places.

My favorite place to ride a bike is: ______________________
______________________________________________

I always think about safety when I ride my bike, and I:
(Check all that apply)

☐ Wear a helmet
☐ Ride at a safe speed
☐ Always watch for cars
☐ Ride with my eyes closed
☐ Ride with an adult or friend
☐ Watch out for obstacles

My friends and family that I like to ride with are:
______________________________________________
______________________________________________
______________________________________________

Helmet Safety
Your first safety mission is to always wear a helmet. A helmet can protect you from a serious injury in case of a fall. Also, wearing a helmet for children is the law. So be sure to always wear your helmet.

Wear your helmet flat on your head. Don’t wear it tilted back or forward at an angle. Make sure your helmet fits snugly, the chin strap fits securely, and the buckle stays fastened.

Ecology Note:
Try to stay on the paved trail or dirt path. If you ride off the trail, you could damage plants, or they could damage your tires. Flat tires are never fun!
Choose One (or do both!):

**If you have ridden a bike:**
Describe what it’s like. Include details about how to steer, pedal, brake, and practice safety while riding.

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**Lesson 7... Ride a Bike, continued.**

**Draw and label a picture of your dream bike.**

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**Write a paragraph about your dream bike using descriptive words (adjectives).**

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Lesson 8
Learn to Swim

Where and Why We Swim!!!
Knowing how to swim is a good skill to have, to keep yourself safe in water, to keep your body healthy with exercise, and to have fun! In California we live near lots of water – the ocean, rivers, and lakes, as well as many swimming pools! So, if you spend time near water, it’s important to learn how to swim!
Check out the Family Guide in the back of this book for some great places to swim or take swim lessons!

Health Note:
The best defense against drowning is learning how to swim. If you don’t know how to swim, ask the lifeguard for the free use of a life jacket when you visit a Regional Park pool or lake.
Swimming Adaptation Match

Many animals live in water. One well-known mammal is the beaver, which has many specific adaptations to help it survive in all types of climates. When you swim, you might use equipment to make swimming safer or more fun. See if you can match your equipment to the beaver’s natural adaptations:

- **Eyes** (clear eyelid so beaver can see underwater)
- **Nose and Ears** (has valves that can close in the nostrils and ears to help keep water out)
- **Fur** (double coat: short, dense fur close to the body, with longer fur covering that, coated with castor oil for waterproofing)
- **Webbed Feet** (so beaver can swim quickly through the water)
- **Lungs and Liver** (large lungs to store air and large liver to store oxygenated blood so beaver can stay under water for about 15 minutes)
- **Nose plug**
- **Ear plugs**
- **Goggles**
- **Snorkel**
- **Fins**
- **Wet suit**

Lots of other animals swim, including fish, ducks, geese, otters, frogs, and many insects. They also have special adaptations that make them such great swimmers.

Next time you see a duck or other swimming animal, try to find some of its special features!
Lesson 8... Learn to Swim, continued.

Swimming Word Find

There are four categories with words that have to do with swimming. Look for each word in the word find. The words go forward, down, or diagonally left to right. As an example, the diagonal word “Swimsuit” has already been found and crossed off the word list.

Where and Why We Swim

Healthy
Safety
Fun
Ocean
River
Lake
Swimming Pool

Personal Equipment
Towel
Swimsuit
Swim Cap
Ear Plugs
Nose Clip
Swimfins
Goggles
Swim Mask
Snorkel

Animals that Swim
Mallard Duck
Harbor Seal
Canada Goose
River Otter
Humans

Water Safety
Lessons
Sunscreen
Life Jacket
Life Ring
Instructor
Lifeguard
Draw and Write

In the box below, draw a picture of you or someone you know swimming.
List three reasons why it’s important to learn how to swim. Give details to explain each reason.

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Lesson 9
Go Boating

There are many different kinds of boats. Some boats move by using motors or sails. Some boats, like canoes and kayaks, move because people push them along with paddles or oars.

**Anchor** - a heavy weight used to secure a boat to the land underneath the water.

**Bow** - front of the boat.

**Gunwale** - pronounced “GUN-el”. It is the upper top edge of the hull at deck level.

**Helm** - a wheel or lever that controls the steering of the boat.

**Hull** - the body of the boat.

**Life jacket** - also known as a Personal Flotation Device (PFD). It is the most important safety item to have around water.

**Port** - the left side of the boat.

**Starboard** - the right side of the boat.

**Stern** - the back of the boat.

**Vessel** - a craft for traveling on, through, or under the water. It can be a ship, powerboat, houseboat, sailboat, rowboat, kayak, canoe, or submarine.

Fill in the Blank Nautical Terms

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[Diagram of a boat with various parts labeled]
You have won a contest to design your own private boat!
Using the nautical terms on page 46, write a paragraph describing your boat.
Include sensory details such as the boat’s size, color, and shape.

Draw a picture of your boat:
Lesson 9... Go Boating, continued.

The name of my boat would be... explain why would you choose that name.

Many boat owners name their boats. Some use funny names like “Sea Ya” or human names like “Melissa’s Voyage”.

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Health Note:

Kids 12 years old and younger must wear a life jacket in California. Make sure it fits well, not too small or too large. It needs to be snug for safety so it doesn’t float up around the wearer’s head when worn in the water.

Photo: Mark Burk
Lesson 9... Go Boating, continued.

Explain who you would like to take sailing on your boat and why:

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Make Your Own Boat in Nature!
From the ground, pick up a leaf, a piece of bark, a flower, or another small natural thing (no trash!). Name your boat. Set it to sail on the water (a creek, lake, or the ocean).
Go Fishing

Sport fishing or angling is a popular recreation activity that started in the Middle Ages nearly a thousand years ago. However, there is evidence that people around the world fished long before the Middle Ages for survival instead of sport. Today, there are many people in the world who still fish for their survival and primary food source. This type of fishing is called subsistence fishing.

Fishing has been part of life here in the Bay Area far back into history. “Ohlone and Bay Miwok peoples used nets, stretched out from tule boats, to catch fish in the Bay and Delta. When fishing at night, they used wormwood and California mugwort torches. They used spears to catch fish along the shore, the edges of streams, and in quiet, fresh water pools. They also used turkey mullein leaves and soap plant bulbs to kill fish.”*

Fish were an important part of the lives of the Ohlone and Bay Miwok. Now you will learn how you can catch fish, too!

Fish Anatomy Fill-in-the-Blanks

Read the descriptions below. Then fill in the blanks on the black crappie fish picture.

Dorsal Fin – This fin is found on the back. It helps keep the fish from rolling upside down, and stopping and starting swimming.

Gills – Found on the side of the body behind the face, gills allow fish to remove oxygen from the water (fish “breathe” underwater!).

Mouth – The part of the body that allows a fish to eat.

Pectoral Fin – Found on the side of the body, this fin helps the fish maintain how deep they are in the water.

Caudal Fin – The fin at the tail end of the fish, which assists the fish in swimming.

Pelvic Fin – Found on the bottom of the fish, it helps the fish move up and down and turn in the water.

Rainbow Trout

Channel Catfish

* (Content author Beverly Ortiz)
Lesson 10... Go Fishing, continued.
Make a Fishing Rig

You don’t need a lot of expensive equipment to fish. Once you know how to tie a clinch knot and attach a split shot sinker and bobber, you can make your own pole and reel from an empty, clean, can! Your can rig will work best when fishing for black crappies, redear sunfish, and blue gill. These fish are known as panfish. Can you guess how they got that name?

Materials

- One clean, empty can (it must be clean: sugar attracts bees!)
- Masking tape
- 6- to 8-pound test fishing line (about 50 wraps)
- Fingernail clipper to cut the line
- Hook
- Split shot sinker (or sinkers)
- Needle-nose pliers to open and secure sinker
- Bobber
- Bait (for fishing)

How to Build Your Can Rig

1. Tie one end of the line to the tab on the can, or around the top of the can with a knot.
2. Securely tape the knot and fishing line near the top of the can.
3. Wrap the line around the can until you reach the last two feet of line.
4. Attach the bobber, split shot sinker, and hook.
How to Tie a Clinch Knot

The clinch knot is very strong and it won’t slip if it is tied properly. This versatile fishing knot can also be used to attach the fishing line to the hook and lures to your fishing line.

1. Thread one end of the line through the eye of the hook.
2. Wrap the line around itself five times to make five twists. Fishing tackle manufacturers have found that five wraps of the line work best. With fewer than five wraps, fish might pull out the knot. With more than five wraps, the line may break.
3. Take the tag (loose) end of the line and put it through the first twist, near the hook.
4. Notice the new loop you have made. Take the same tag end and pass it through the new loop. (This is the “improved” part of the knot that prevents it from slipping.)
5. Drop this end.
6. Slide the whole knot down to the hook.
7. Gently tug on the end you previously dropped.
8. Neaten the knot. It’s important to make sure the knot is “neat,” or that the coils are tightly lined up. If there are loose wraps, or wraps on both sides of the eye, the knot may snag and break.
9. There should be neatly stacked coils lined up next to the eye.
Lesson 10... Go Fishing, continued.

Fish Are Our Friends
What are some things you can do to protect fish in your community?

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Ecology Note:
Litter, soap from washing cars, and other waste can find its way into the storm drains, emptying into our creeks and then into the Bay. To help the environment stay clean and the fish that we may eat stay healthy, never litter and use only biodegradable car wash soap or waterless car wash products.
Create a Poster

You notice waste flowing into the storm drain on your street. You want to bring attention to this problem within your community. Create a poster with illustrations that teaches your neighbors at least two important ways they can protect the fish and other wildlife in the local creeks and bay.
Exploring Outside: Health & Safety

Accessibility
Many of the District’s parks have barrier-free parking, picnic areas, restrooms, drinking fountains, trails, and visitor centers. Detailed information is available at www.ebparks.org/parks/accessibility, or call the Park District.

Costs
Most parks do not have any fees. Some parks do have a fee for parking, or for swimming. Find out about each park by calling 1-888-EBPARKS or visiting our website.

Getting to the Parks
Find directions to each park online at www.ebparks.org. Plan your trip using public transit by visiting www.transitandtrails.org. Low-cost transportation is available for low-income schools and groups serving children from low-income families, seniors or people with disabilities in Alameda and Contra Costa counties. Call the Park District’s Parks Express at (510) 544-2205.

Staying Safe Outdoors
Some common sense safety tips include keeping children in sight, staying on the trails, and bringing food and water for everyone. Be prepared for scrapes, bug bites and minor injuries by bringing a first aid kit. Learn to recognize bees, wasps, and ticks. Avoid poison oak. If you’re exploring in a new area, plan your trip using a park map or brochure, or ask for information at a visitor center. Plan your outing so you will be done well before sunset. Bring a flashlight and cell phone just in case - but be aware many parks do not have cell phone service. Walk with a friend, and let friends at home know where you are going and when you expect to be back.

Tips
Bring sunscreen and a wide-brimmed hat, sturdy shoes and comfortable layers of clothing.

Swim Safety
Children 12 years old and under are not permitted in the swimming areas unless accompanied by a responsible, actively supervising, individual 16 years old or older.

Trash
Trash goes in a trash can or home with you.

Animals and Plants
Leave animals alone. Report hurt animals to a ranger. Don’t try to help them yourself. Leave all rocks, plants and flowers where they are.

Dogs
If you are bringing your dog, make sure it is allowed in the park or area where you want to go, and bring a leash. Where allowed off-leash, dogs must be under voice command. Keep dogs from disturbing wildlife and digging holes.

Learn More
The Park District offers activities year round for visitors of all ages! Topics include fishing, camping, family walks, nature programs and much more. Watch for the “Regional in Nature” activity guide in your local newspaper, at your library or community center, or go to www.ebparks.org for a schedule of activities.

Emergencies
For life-threatening emergencies in the Regional Parks call 911 or 510-881-1121.
For non emergency public safety calls, contact 510-544-2509 or report a problem using our website.

General Information
1-888-EBPARKS (1 (888) 327-2757)
www.ebparks.org

Kaiser Permanente
Kaiser Permanente is committed to helping shape the future of health care and is recognized as one of America’s leading health care providers and not-for-profit health plans. Kaiser is a major sponsor of the East Bay Regional Park District’s annual Trails Challenge Program and supports parks and outdoor recreation as a component of a healthy life-style.

The Kids Challenge is based on the California Children’s Outdoor Bill of Rights, adopted by the California Roundtable on Recreation, Parks and Tourism. The “bill” recommends ten outdoor activities for every child to participate in before the age of 14.
Parents and guardians, explore the great outdoors with your child. The East Bay Regional Park District in Alameda and Contra Costa counties offers great places, events, and programs to help you and your family get healthy in the great outdoors, close to home.

Lesson 1... Connect with the Past

The Regional Park District has 10 visitor centers you can visit:

**Ardenwood Historic Farm**
34600 Ardenwood Boulevard
Fremont, CA 94555-3645
(Ardenwood Boulevard exit off Highway 84)
(510) 544-2797
*Email:* awvisit@ebparks.org
*Hours:* Tuesday - Sunday, 10 a.m. to 4 p.m.
Closed on Thanksgiving and Christmas Day
Open Memorial Day, July 4th, and Labor Day

**Big Break Visitor Center at the Delta**
69 Big Break Road
Oakley, CA 94561 (North of Vintage Parkway)
1 (888) 327-2757, option 3, extension 4596
*Email:* BigBreakVisit@ebparks.org
*Hours:* 10 a.m. - 4 p.m.

**Black Diamond Mines Regional Preserve**
5175 Somersville Road
Antioch, CA 94509
(Somersville Road exit off Highway 4)
(510) 544-2750
*Email:* bdvisit@ebparks.org
*Hours:* 8 a.m. - dusk
*Mine tours:* March - November

**Coyote Hills Regional Park**
8000 Patterson Ranch Road
Fremont, CA 94555-3502
(Paseo Padre exit off Highway 84)
(510) 544-3220
*Email:* chvisit@ebparks.org
*Hours:* Tuesday - Sunday, 10 a.m. - 4 p.m.
Closed on Thanksgiving and Christmas Day

**Crab Cove Visitor Center**
1252 McKay Avenue
Alameda, CA 94501-7805
(Take the Webster Tube from I-880 in Oakland)
(510) 544-3187
*Email:* ccove@ebparks.org
*Hours:* Wednesday - Sunday
October - February, 10 a.m. - 4 p.m.
March - September, 10 a.m. - 5 p.m.
Closed on Thanksgiving and Christmas Day

**Del Valle Regional Park**
7000 Del Valle Road
Livermore, CA 94550-9526
(Take the N. Livermore exit off I-580; right on Mines Road; right on Del Valle Road)
(510) 544-3249
*Hours:* www ebparks org/parks/del_valle

**Garin Regional Park**
1320 Garin Avenue
Hayward, CA 94544-6822
(Off Mission Boulevard Highway 238)
(510) 544-3220
*Hours:* 11:30 a.m. - 6 p.m.

**Garin Barn Visitor Center:** open Weekends and Holidays, Memorial Day through Labor Day, 11:30 a.m. - 6 p.m.

**Dry Creek Garden Hours:**
Thursday - Saturday, 10 a.m. to 4 p.m.

**Garin Barn Visitor Center:** open Weekends and Holidays, Memorial Day through Labor Day, 11:30 a.m. - 6 p.m.

**Little Farm daily, 8:30 a.m. - 4 p.m.**

**Regional Parks Family Guide**

Parents and guardians, explore the great outdoors with your child. The East Bay Regional Park District in Alameda and Contra Costa counties offers great places, events, and programs to help you and your family get healthy in the great outdoors, close to home.

**Lesson 1... Connect with the Past**

The Regional Park District has 10 visitor centers you can visit:

**Sunol-Ohlone Regional Wilderness**
P.O. Box 82
Sunol, CA 94586
(Calaveras Road exit off I-680; left on Geary Road)
(510) 544-3249
*Email:* svisit@ebparks.org
*Hours:* www ebparks org/parks/sunol

**Old Green Barn Visitor Center:** open weekends, 10 a.m. - 4 p.m.

**Tilden, Regional Parks Botanic Garden**
Intersection of Wildcat Canyon Road and South Park Drive
Berkeley, CA 94701
(Use Shasta Road to connect to Wildcat Canyon Road when South Park Drive is closed November through March)
(510) 544-3169
*Hours:* October - May, 8:30 a.m. - 5 p.m.
June - September, 8:30 a.m. - 5:30 p.m.
Closed New Year’s Day, Thanksgiving, and Christmas Day

**Tilden Nature Area - Environmental Education Center (EEC)**
600 Canon Drive
Berkeley, CA 94708
(Tilden Regional Park, north end of Central Park Drive)
(510) 544-2233
*Email:* tnarea@ebparks.org
*Hours:* Tuesday - Sunday, 10 a.m. - 4:30 p.m.
Little Farm daily, 8:30 a.m. - 4 p.m.
Lesson 2... Play in a Safe Place

Visit one of these play areas... or come play in any public park!

- Castle Rock Regional Recreation Area, Walnut Creek
- Kennedy Grove Regional Recreation Area, El Sobrante
- Martinez Regional Shoreline, Martinez
- Martin Luther King, Jr. Regional Shoreline, Oakland (Environmental Play Area)
- Miller/Knox Regional Shoreline, Richmond
- Point Pinole Regional Shoreline, Richmond
- Redwood Regional Park, Oakland
- Roberts Regional Recreation Area, Oakland, wheelchair accessible children's play area
- Temescal Regional Recreation Area, Oakland
- Tilden Regional Park, (Near the Tilden Nature Area) Berkeley
- Wildcat Canyon Regional Park, Richmond

Lesson 3... Explore Nature

Learn about wildlife, and how we’re connected to our ecosystem: Come to a program at a Visitor Center... or explore in any of the Regional Parks.

Stuff to do in an East Bay Regional Park:

- Meet a crab at Crab Cove Visitor Center, Crown Memorial State Beach in Alameda
- Go birding at Coyote Hills Regional Park in Fremont
- Learn about geology at Black Diamond Mines in Antioch
- Harvest the crops at Ardenwood Historic Farm in Fremont
- Listen to a creek at Sunol Regional Wilderness in Sunol
- Pick up a field guide to common animals and plants at a Regional Parks visitor center or from our website.

Parents: EBRPD Visitor Centers offer free and low cost programs for families year round. Pick up a Regional in Nature Activity Guide for a complete list, or go to www.ebparks.org. Visitor Centers are listed on page 57.

Lesson 4... Follow a Trail

What’s it called? Where is it? Cool stuff to see

1. Little Yosemite Trail .......... Sunol Regional Wilderness .................. The “W” tree and Little Yosemite waterfall
2. Indian Joe Trail ................ Sunol Regional Wilderness ................. Self-guided nature trail and Indian Joe cave rocks
3. Round Top Trail .............. Sibley Volcanic Regional Preserve ...... Look for interesting volcanic rocks while you walk on a dormant volcano
4. Pine Canyon Trail .......... Diablo Foothills Regional Park .................. scenic nature walk through oak woodlands
5. Pinole Point Trail .......... Point Pinole Regional Shoreline .............. Birdwatching, Bay views, and an old dynamite factory site

Families – Join the Trails Challenge program for a trail guidebook and more trail tips! Visit www.regionalparksfoundation.org for more information and online sign up.

Lesson 5... Plant a Seed

You can visit many Regional Parks and see different types of plants from a redwood forest to a meadow full of wildflowers. In Tilden Regional Park you can visit the Botanic Garden where native plants from all over California are grown on a ten-acre site. There you can take a “plant walk” through the entire State of California in less than an hour. Visit www.ebparks.org for a list of Regional Parks or call the Parks at 1 (888) 327-2757.

Lesson 6... Camp Under the Stars

Family Campgrounds in the East Bay Regional Parks:

- Anthony Chabot Regional Park, Castro Valley
- Del Valle Regional Park, Livermore
- Sunol Regional Wilderness, Sunol
Group campsites are also available at 11 parks! Call to find out which one is best for your group.

Camping reservations, classes, and free campfire programs:
www.ebparks.org/activities/camping
or call 1 (888) 327-2757

Lesson 7... Ride a Bike
East Bay Regional Park District paved trails are great places to ride a bike. They include:
• Iron Horse Trail from Dublin/Pleasanton BART to Concord
• Alamo Canal Trail, Dublin
• Lafayette Moraga Trail, Lafayette-Moraga
• Alameda Creek Trail, Fremont
• San Francisco Bay Trail at Eastshore State Park, Berkeley to Richmond
• Contra Costa Canal Trail, Walnut Creek, Pleasant Hill, Concord
• Big Break Trail, Oakley
• Delta de Anza Trail, Antioch, Oakley, Bay Point, Pittsburg

Find maps to these trails online at www.ebparks.org/trails or call 1 (888) 327-2757 to request a map be mailed to you.

Lesson 8... Learn to Swim
Swim lessons are offered at Roberts and Contra Loma parks.
For swim lesson information, hours, safety rules, and swim area fees, go to www.ebparks.org/activities/swimming or call 1 (888) 327-2757.
East Bay Regional Park District Swim Area Safety Tips: Kids 12 and under must be supervised by someone 16 or older.

Where to swim!
Castle Rock • Roberts • Contra Loma • Cull Canyon • Don Castro • Del Valle • Quarry Lakes • Shadow Cliffs • Temescal • Tilden

Lesson 9... Go Boating
Even if you’ve never been in a canoe or kayak you can try one out at the East Bay Regional Park District where there are many boating programs for kids and families. There are also some lakes nearby where you can come with an adult and rent a motorboat, canoe, kayak, or paddle boat for a few hours, or an entire day. There are boat rentals at Lake Del Valle, Lake Chabot, and Shadow Cliffs Regional Parks. There are programs for rowing and paddling at Tidewater Boating Center. To find the boat rentals or a boating program near you, visit www.ebparks.org/boating or call the Park District at 1 (888) 327-2757.

Lesson 10... Go Fishing
Where to Go Fishing!
The East Bay Regional Park District offers 11 lakes and reservoirs and over 25 miles of Bay/Delta shoreline and piers for fishing in Alameda and Contra Costa counties. Some of these are Lake Anza, Contra Loma, Quarry Lakes, Ferry Point Pier, and Eckley Pier. Find a complete list online at www.ebparks.org/activities/fishing
Classes • Fishing Derbies • Licenses and Permits
If you are 16 or over, you’ll need a State Fishing License and a Park District permit. Call 1 (888) 327-2757 or go to www.ebparks.org/activities/fishing

Contacts
Website
www.ebparks.org
Receptionist
1 (888) EBPARKS or 1 (888) 327-2757
TDD
(510) 633-0460, Monday through Friday from 8:30 a.m. to 5 p.m.
24-hour Information/Request
Park Brochures
1 (888) EBPARKS or 1 (888) 327-2757, press option 5, then 2, then 1
To download park brochures online, visit the Maps page (www.ebparks.org/parks/maps)
Job Hotline
1 (888) EBPARKS or 1 (888) 327-2757, press option 5, then 1, then 1
To find the boat rentals or a boating program near you, visit www.ebparks.org/boating or call the Park District at 1 (888) 327-2757.

East Bay Regional Park District

Regional Parks Family Guide, continued.
This Page is for You!

**Draw and Write**

What is your favorite activity in this book?
What did you learn?

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What outdoor activity would you like to try for the first time?