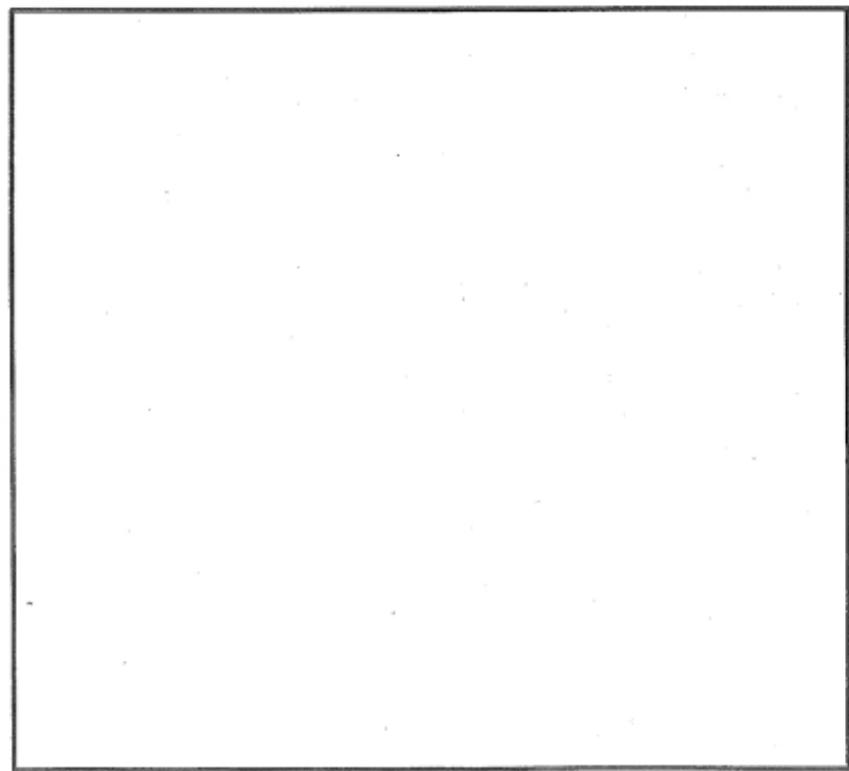


Science Practices

Cycle

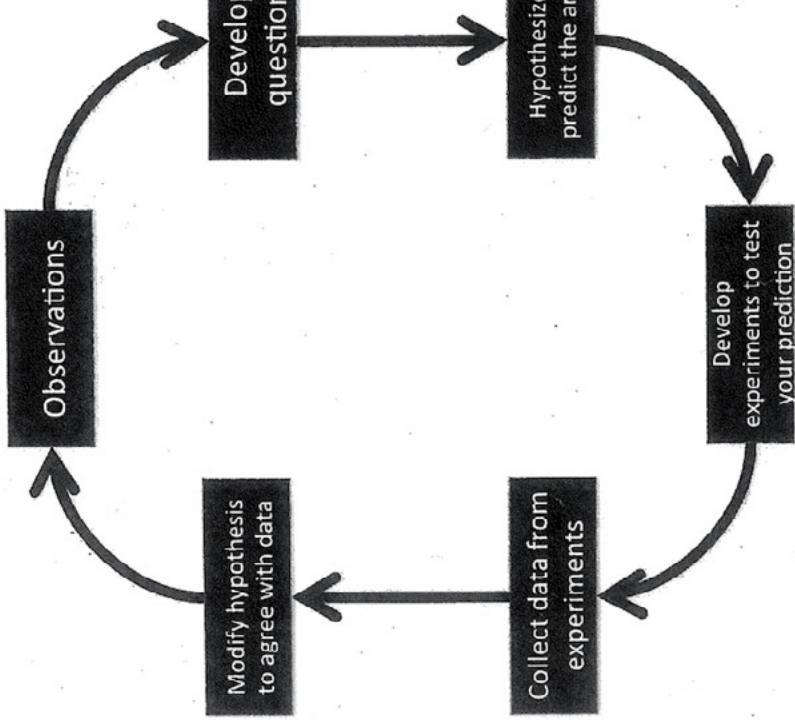
Please draw the _____ cycle in the box below



How are humans impacting the _____ cycle?

Give evidence that supports whether humans are positively or negatively affecting the _____ cycle.

Science Practices



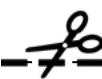
What is Science?

Observing

Making connections

DRAWING AND WRITING Asking questions

Discussing ideas from evidence



Glossary

Abiotic: the non-living parts of a habitat (water, rocks, soils, etc.)

Adaptation: a feature or behavior that helps a plant or animal to survive in its environment

Amphibian: a type of animal that lives in and out of water

Aquatic: describes an organism that lives in water

Biome: large geographic areas with similar climates and ecosystems

Biotic: describes the living components of a community including plants, animals, fungi, and bacteria

Camouflage: the ability of an organism to blend with its surroundings

Carnivore: an animal that feeds mainly on other animals

Carrying capacity: the maximum population of a given organism that an ecosystem can support without being destroyed or degraded over time

Chaparral: a shrubby coastal community characterized by hot, dry summers and mild, rainy winters

Chlorophyll: the green pigment in plants responsible for absorbing light energy for photosynthesis

Climate: the average weather conditions of a place over a period of time

Community: a group of living things within a particular area

Competition: the simultaneous demand by two or more organisms for limited environmental resources such as nutrients, space, or light

Condensation: the process by which matter changes from gas (or vapor) to liquid

Consumer: an organism that obtains its energy by feeding on other organisms

Crepuscular: an animal that is active at dawn or dusk

Cycle: a series of events that are repeated in the same order

Deciduous: a type of plant that sheds its leaves every year

Decomposer: an organism that feeds on dead plant or animal matter, making organic nutrients available to be recycled in the ecosystem

Diurnal: an animal that is active during the day

Ecology: the study of the relationships between living things and their environment, including other organisms

Ecosystem: all living and non-living elements within an area and the interactions among them



Aquatic Macroinvertebrate Pollution Tolerance

Aquatic invertebrates that have low tolerance for pollution (PTI=3)

Aquatic invertebrates that have medium tolerance for pollution (PTI=2)

Aquatic invertebrates that have high tolerance for pollution (PTI=1)

Name	Pollution Tolerance Index (PTI)	Write PTI ≠ if you found this organism
Caddisfly Larva	3	
Mayfly Nymph	3	
Stonefly Nymph	3	
Dobsonfly Larva	3	
Flatworm	2	
Cranefly Larva	2	
Damselfly Nymph	2	
Dragonfly Nymph	2	
Freshwater Scud	2	
Aquatic Snail	2	
Water Mite	2	
Blackfly Larva	1	
Horsefly Larva	1	
Midge Larva	1	
Backswimmer	1	
Giant Water Bug	1	
Water Boatman	1	
Water Strider	1	
Mosquito Larva	1	
Whirligig Beetle	1	
Aquatic Worm	1	
Leech	1	
Crayfish	1	

Total of PTI =

PTI Scale:

0 - 5 = Poor water quality

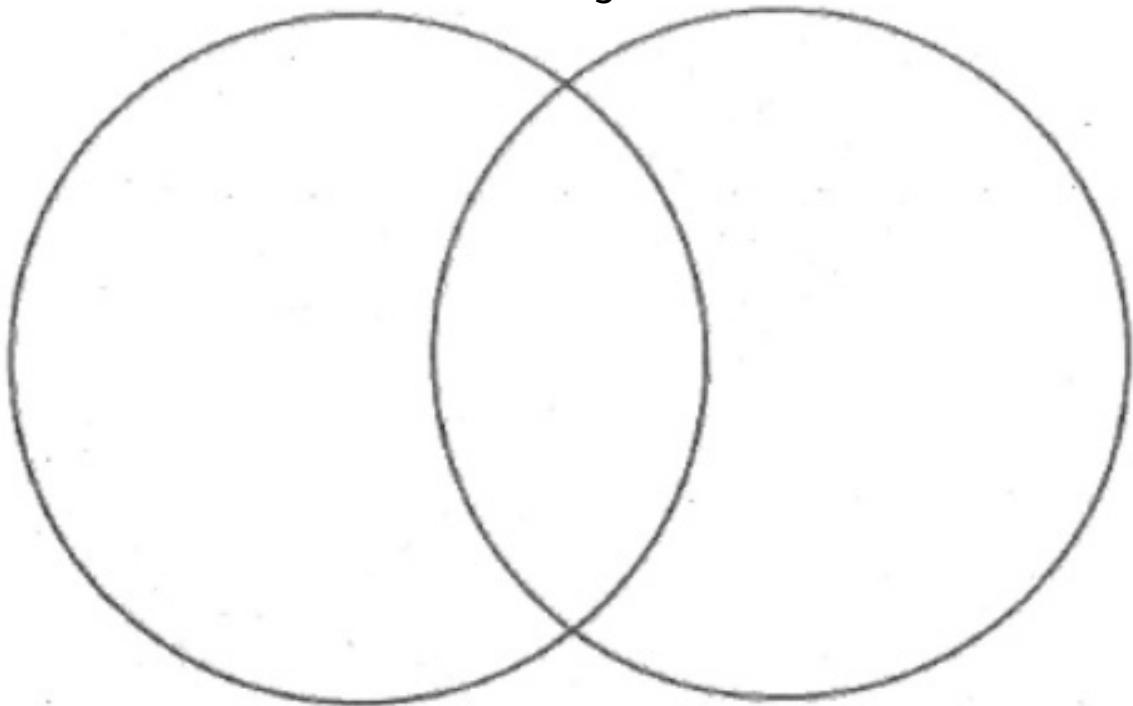
6 - 9 = Fair water quality

10 - 13 = Good water quality

14 - 17 = Excellent water quality



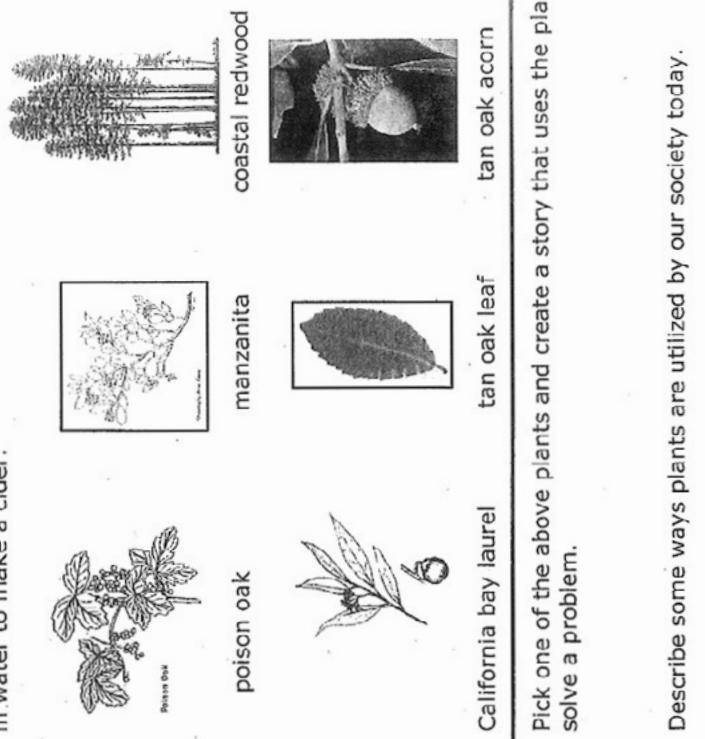
Venn Diagram



The Ohlone People

Did you ever wonder how the traditional people of the redwood forest lived? After looking around the forest, imagine what it was like to live here 1000 years ago.

The word **Ohlone** is Miwok language word meaning "western people." The Ohlone People possess a deep understanding of **ethnobotany** (the cultural uses of plants) in this area. For example, the **California bay laurel** is nature's insect repellent. Additionally, the smoke created by burning these leaves can be used to drive squirrels out of their burrows. The **tan oak** tree produces acorns that can be ground into a mush and used to make bread. The bark could also be used as a dye. The berries from the **manzanita** can be eaten raw, or soaked in water to make a cider.



What is one of your favorite foods? Describe what plants were involved in creating it.

PHOTOSYNTHESIS

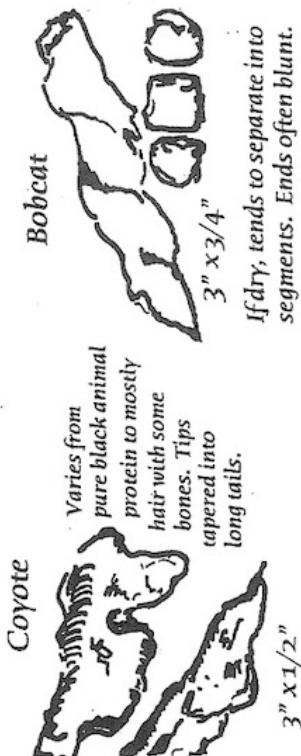
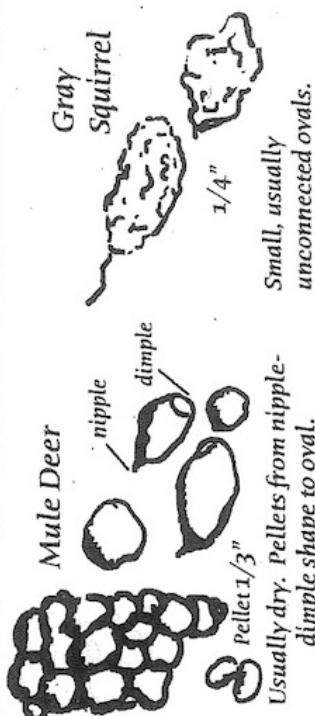
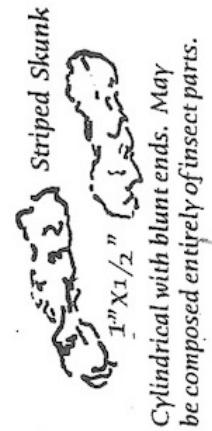
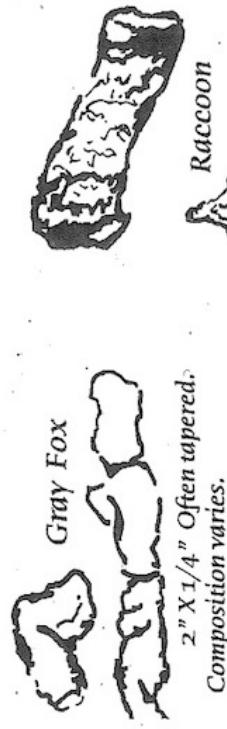
Remember Laws!!



Producers are the only living organisms on Earth that can take in non-living (abiotic) things and turn them into living (biotic) energy.

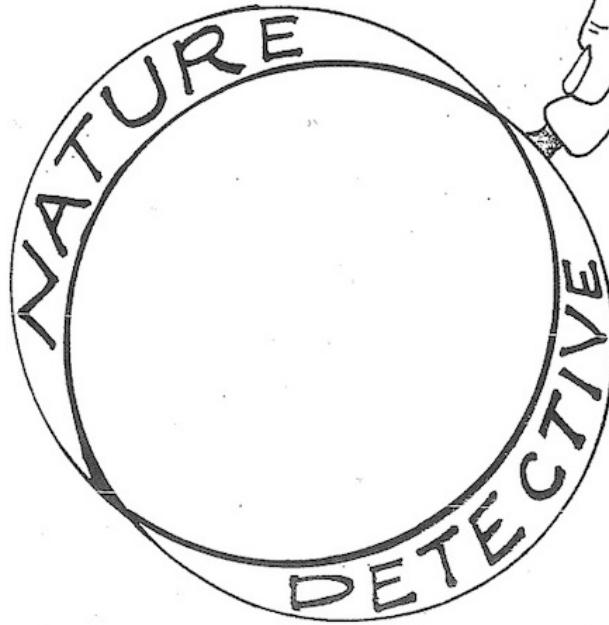


ANIMAL SCATS of



AS SOON AS YOU SET FOOT AT
NATURE DETECTIVE! AS NATURE DETECTIVE
CARRY OUR BOX OF TOOLS WITH US ON EVERY
EMBARK UPON. WHAT'S IN OUR BOX OF TOOLS?

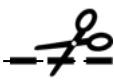
(YOU BECAME,
WE ALWAYS
VENTURE WI-



TOOL #1 _____ TOOL #2 _____
TOOL #3 _____ TOOL #4 _____

TOOL #5 _____

USING AS MANY OF YOUR TOOLS AS POSSIBLE,
DRAW THE HABITAT OF A PLANT OR ANIMAL YOU FIND
AT [REDACTED] IN THE MAGNIFYING GLASS ABOVE.
INCLUDE AS MANY ABIOTIC AND BIOTIC COMPONENTS
TO ITS HABITAT THAT YOU FIND.



Outdoor School Pledge

I, _____, as a citizen of the Earth and new member of the _____ Community, understand that I have a responsibility to treat our home the planet Earth with care and respect. From this moment on, I pledge to:

I also understand how my actions affect other people. Therefore, I set the following goals to build positive relationships with others:



Signed _____
Witness _____



Welcome to Outdoor School!

What expectations do you have for outdoor school this week? Have you heard anything about it from friends/brothers and sisters who have been here before? Write a few sentences about what you'd like to accomplish and experience here this week.

What is your cabin leader's nature name? Write one interesting thing they have told you so far.

What would your nature name be if you could choose one?

What do you think of when you hear the word science?

What aspects of science do you want to learn about/experience most this week?

Wood SpecT

R	E	D	N	A	M	A	L	A	S	C	D	P	F
C	O	L	O	B	S	S	T	N	E	I	R	T	O
N	A	S	C	N	R	O	W	H	P	M	Y	N	N
H	O	T	B	Y	E	A	1	O	O	P	O	O	G
E	U	Y	M	K	C	H	C	L	Y	I	R	I	O
R	E	T	A	W	O	R	C	C	T	A	Q	T	S
B	P	I	L	I	D	B	E	I	O	C	W	A	Y
I	R	N	Q	N	O	Y	S	Φ	L	O	P	R	L
V	E	O	A	D	R	O	C	W	E	N	N	O	E
O	Y	M	E	Y	Φ	T	A	O	D	S	C	P	S
R	A	M	P	M	I	H	T	M	Φ	U	I	A	R
E	P	O	O	W	L	G	R	O	W	M	R	V	E
S	A	C	A	R	N	I	V.	O	R	E	C	E	V
K	E	M	L	I	O	L	D	A	T	R	L	H	I
D	H	D	A	Φ	T	A	T	I	O	N	E	K	D

WORD BANK

MICRO	NYMPH	GROW	DIVERSE
PREY	LICHEN	RAINFOREST	LIGHT
WINDY	SIR	WISTER	NUTRIENTS
SOIL	FUNGUS	CYCLE	DECOMPOSER
DEITY	CONSUMER	APPLICATION	SAUMLANDER
OAK	COMMUNITY	PRODUCERS	EVAPORATION
CARNIVORE	HERBIVORES	CIRCLE	SCAT
		INTERDEPENDENCE	

"In all things of nature there is something of the marvelous."
Aristotle



Blank Page

Banana Slug Song

Chorus:

Ba - na - na - *Slug! Slug! Slug!*
Banana Slug Ba - na - na - na - na - na - na
Banana Slug Ba - na
Banana Slug Banana Slug

You know I love my baby (love my baby)
I love the way that it hugs (way that it hugs)
People don't understand it (don't understand it)
It's a banana slug (banana slug)

It's just got one foot (got one foot)
It ain't got no toes (got no toes)
It hangs out in the forest (out in the forest)
And helps to decompose (decompose)

The way you wiggle your antennae (wiggle your antennae)
You know it gives me such bliss (gives me such bliss)
Come on, come on banana slug (come on banana slug)
Why don't you blow me a kiss?

The way it slides through the forest (slides through the forest)
You know it looks so odd (looks so odd)
Its stomach is its foot (its stomach is its foot)
It's a gastropod (gastropod)

Some people say that it's gross (say that it's gross)
Don't want to hear that jive (hear that jive)
'Cause if it weren't for my baby (if it weren't for my baby)
The forest might not survive (might not survive)

You know I love my baby (love my baby)
But he doesn't love me (doesn't love me)
He is hermaphroditic (hermaphroditic)
That means he's also a she

