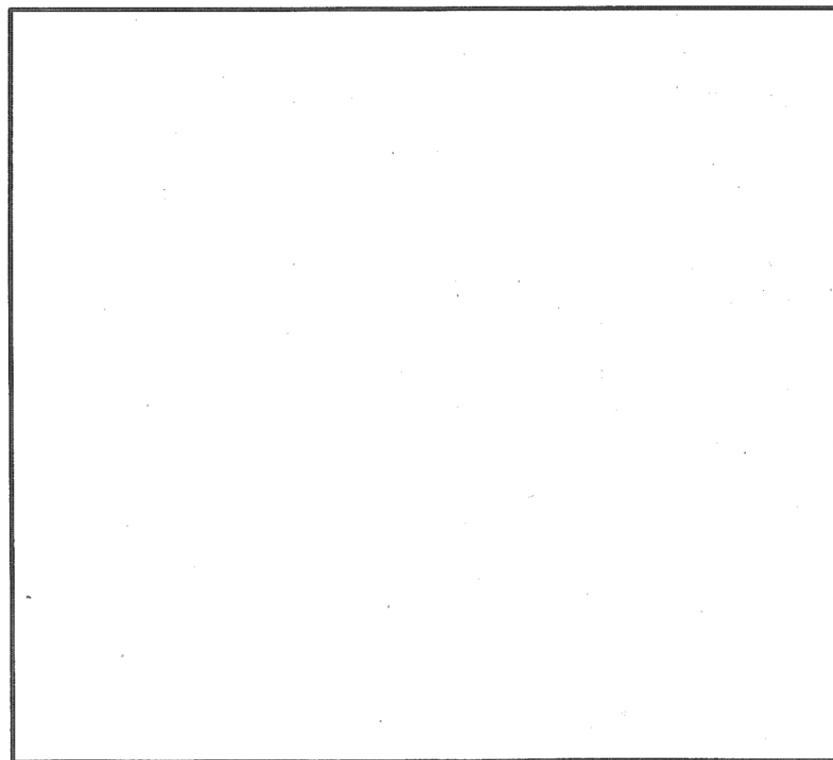


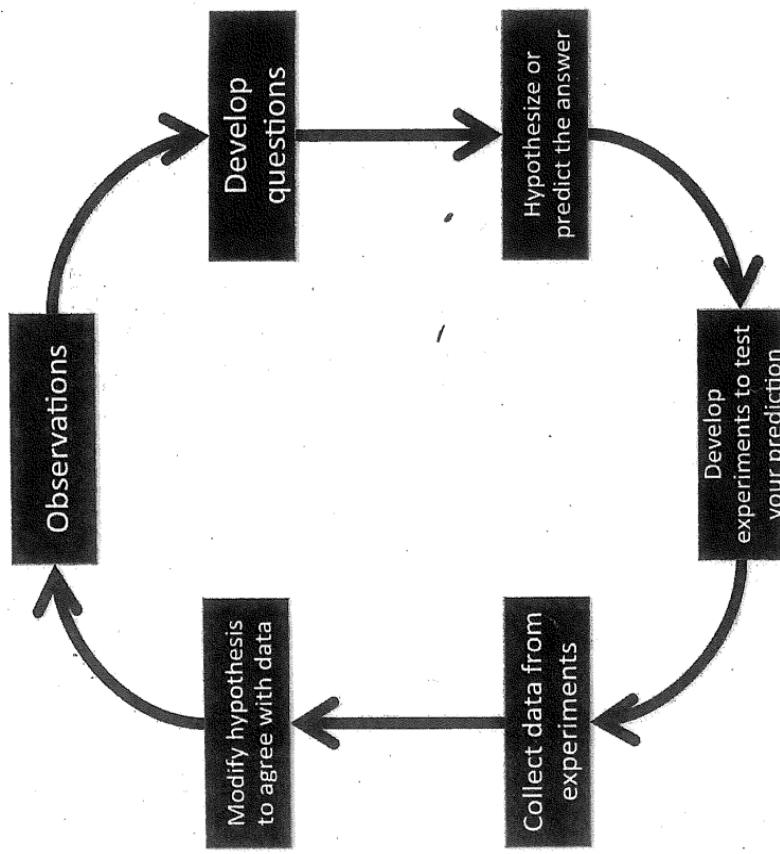
STUDENT JOURNAL SAMPLE PAGES

Cycle

Please draw the _____ cycle in the box below



Science Practices



What is Science?

Observing Making connections

DRAWING AND WRITING Asking questions

Discussing ideas from evidence

26

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

How are humans impacting the _____ cycle?

Vocabulary

Abiotic: the non-living parts of the environment (such as air, rocks, water and sunlight)

Adaptation: a physical or behavioral characteristic that helps an organism survive in its environment

Biotic: the living parts of the environment

Climate: the long-term weather that determines what types of life will survive in a particular area

Consumer: an organism that feeds on plants or other animals to get energy

Decomposer: an organism that breaks down dead and decaying matter to get energy and recycles nutrients in the ecosystem (fungi, bacteria, and many invertebrates)

Ecology: the study of the interrelationships between organisms and their environment

Ecosystem: all the different species of organisms that interact with each other and with nonliving components of their habitat such as sunlight, air, water, soil and minerals

Erosion: the loosening and detachment of earthen material that is transported to another area through the movement of wind, water, ice or human and animal activity

Geology: field of science that studies the dynamics and physical history of the earth, including rocks and minerals in all forms

Habitat: the specific place in which an organism lives and has access to resources such as nutrients, water, shelter and space

Igneous Rock: formed by the cooling of magma, either above or below the earth's surface

Invertebrate: an animal without a backbone (such as worms, insects, or snails)

Metamorphic Rock: pre-existing rock that is changed by extreme heat or pressure into another type of rock

(13)



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:

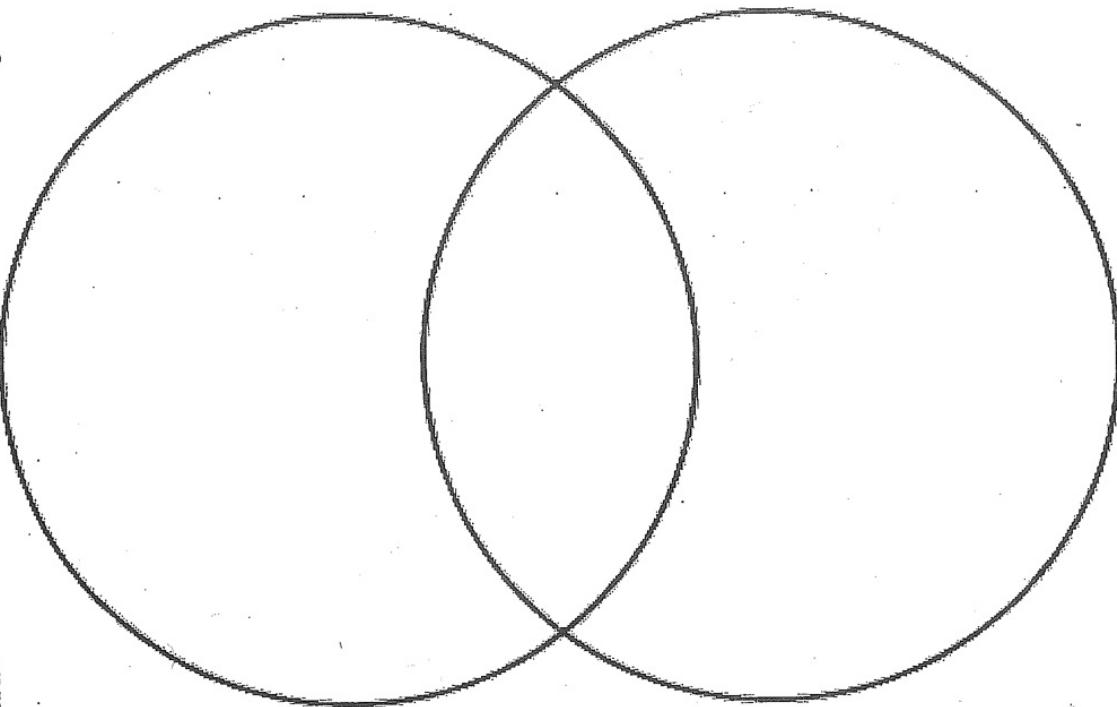
0 - 5 = Poor water quality

6 - 9 = Fair water quality

10 - 13 = Good water quality

14 - 17 = Excellent water quality

Diagram
Venn

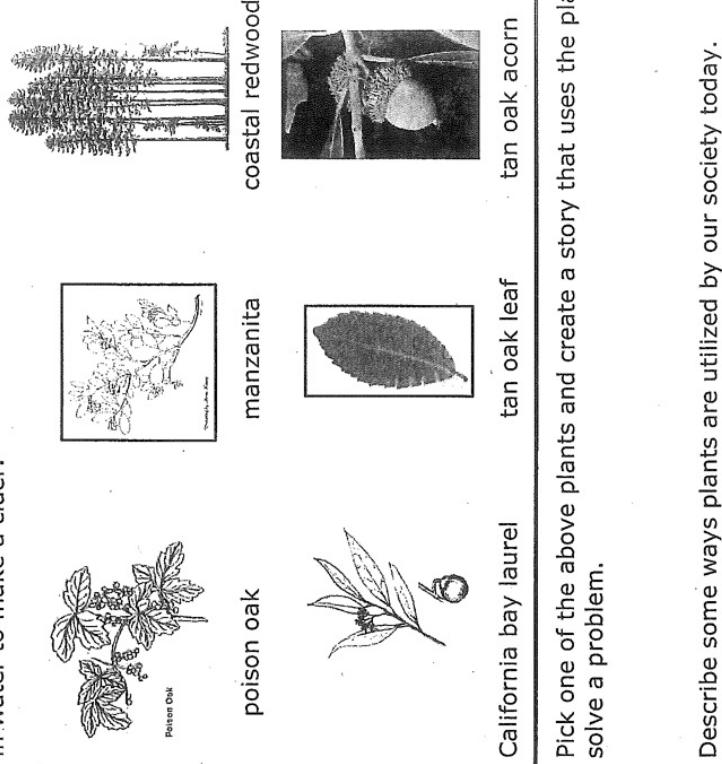


(17)

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.

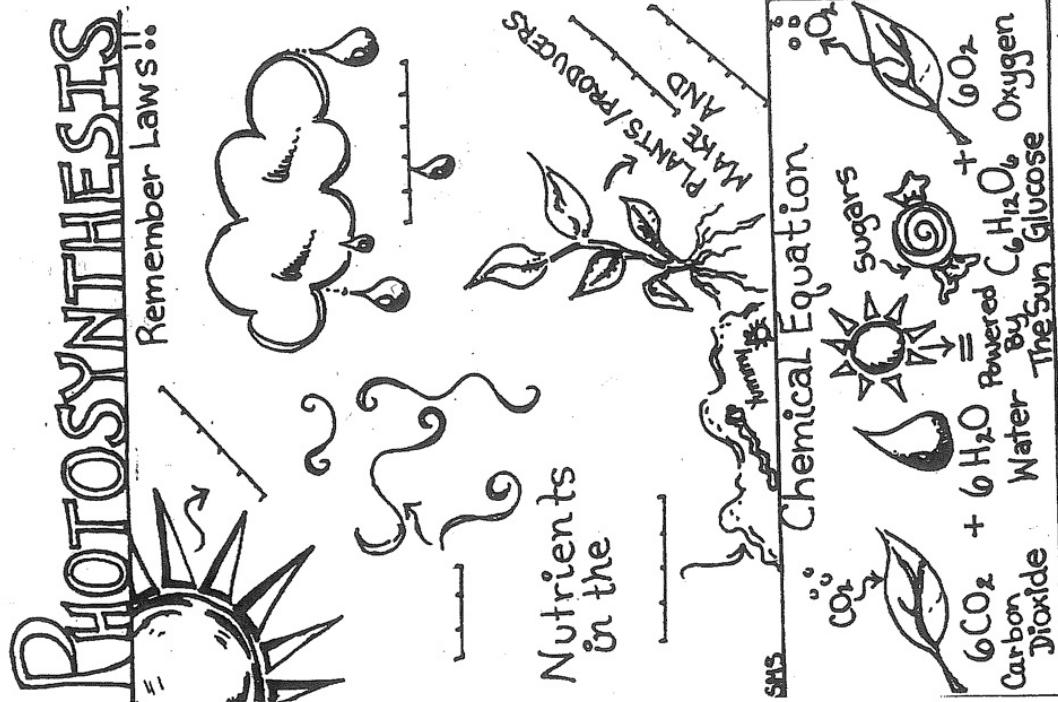


Producers are the only living organisms on Earth that can take in non-living (abiotic) things and turn them into living (biotic) energy.

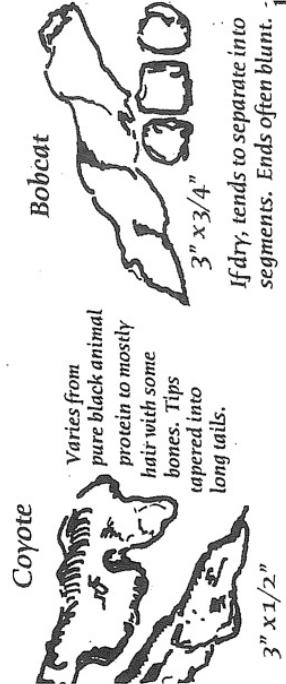
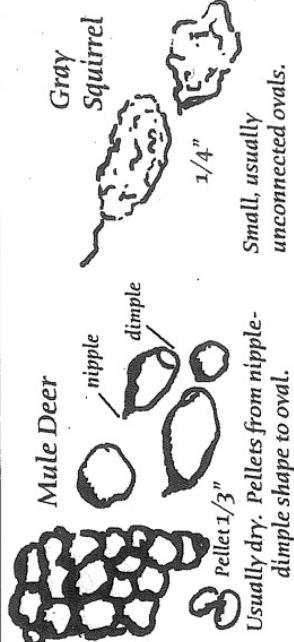
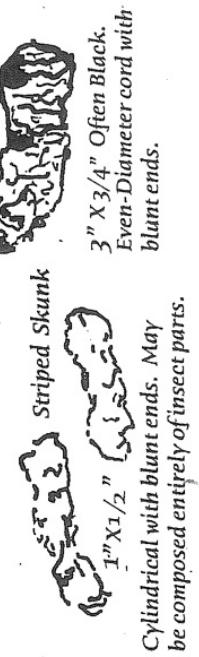
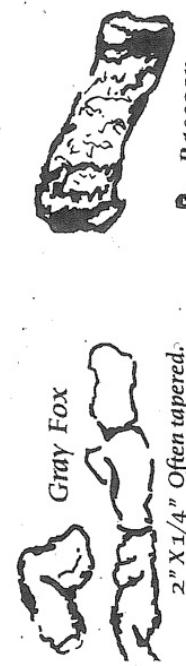
17

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

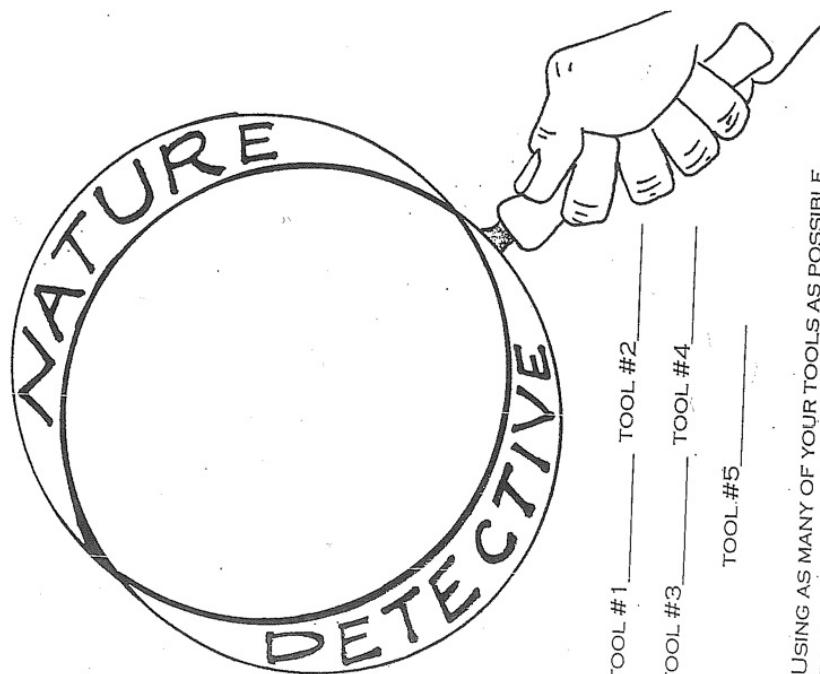
Field Journaling with Students-BEETLES PL Session Materials



ANIMAL SCATS of



AS SOON AS YOU SET FOOT AT
YOU BECAME
NATURE DETECTIVE! AS NATURE DETECTIVES, WE ALWAYS
CARRY OUR BOX OF TOOLS WITH US ON EVERY ADVENTURE W/
EMBARK UPON. WHAT'S IN OUR BOX OF TOOLS?



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 ~~_____~~ IN THE MAGNIFYING GLASS ABOVE.
INCLUDE AS MANY ABIOTIC AND BIOTIC COMPONENTS
TO ITS HABITAT THAT YOU FIND.

30

Welcome to Outdoor School!

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 _____



WORLD OF SPECTRUM

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	F	O	O	G
E	U	Y	M.	K	C	H	C	L	Y	I	R.	I	U
R.	E	T	A	W	U	R	C	C	T	A	G	T'	S
B	P	I	L	I	D	B	E	I	O	C	W	A	Y
I	R.	N.	G	N	O	Y	S	P	L	O	B	R.	L
V	E	O	A	D	R	O	C	W	E	N	N	O	E
O	Y	M	E	Y	P	T	H	O	D	S	C	P	S
R.	A	M.	P.	M.	I	H	T	M	P	U	I	A	R.
E	B	O	O	W	L	Q	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	A	I
D	A	D	A	P	T	A	T'	I	O	N	E	K	D

WORD BANK

ALGAE	NYMPH	GROW	DIVERSE
PREY	LICHEN	BEACON	LIGHT
WINDY	SUB.	WATER	NUTRIENTS
SOIL	FUNGIUS	CYCLE	DECOMPOSITION
BAY	CONSUMER	ABSORPTION	SALAMANDER
OAK	COMMUNITY	PRODUCERS	EVAPORATION
CARNIVORE	HERBIVORES	CIRCLE	SCAT
		INTERDEPENDENCE	

"How glorious a greeting the sun gives the mountains!" -John Muir

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

Banana Slug Song

Chorus:

Ba - na - na - Slug! (Slug! Slug! Slug!)
Banana Slug Ba - na - na - na - na - na
Banana Slug Ba - na - na - na - na - 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

