

UNIT THREE - EQUITY

# What are our relationships to this watershed?



**KEY WORDS:**

RELEASE, SHARING, EQUITY

**THEME:**

“PLAY FAIR”

**LEARNING OBJECTIVE:**

Students learn the importance of water--to the survival of people, and of people--to the survival of usable water. Through several activities, students become even more aware of the web of connecting systems that function to gather, to hold, and to release life to its citizens.

“When we try to pick out anything by itself, we find that it is bound by a thousand invisible cords...to everything in the universe.”

*Naturalist John Muir*

**TEACHER NOTES:**

In the process of identifying our relationships to water, we are confounded by our inability to separate ourselves from water. Wherever we turn, we are part of the community of water and watersheds. In every community there is a web of connecting systems that functions to gather, hold and give life to its citizens. Our community is like a watershed, and the relationships that make up the community model the interdependency of the resources-gifts of a watershed. A healthy, thriving watershed is a balancing act where the forces of nature are constantly changing and creating opportunity for life to happen.

“If you take one tree, plant two. If you need one bushel of wheat, plant two.” This behavior builds community. In action, it mirrors a fundamental behavior of life. Give and take. Be fair. Balance what you take with what you give.

In this unit, students explore how communities of the past and present have honored and revered the living gifts and waters of the watershed. Students discover how the resources-gifts of the watershed are connected to water.

**TOOLS:**

DAY ONE

*Transparencies:*

1. Definition: Equity (page 38)
2. Quotes of many people, many nations (page 44)
3. Quotes and the Word Web (page 39)

*Handouts:*

Quotes of many people, many nations (page 42-43)

DAY TWO

*Transparencies/Article:*

1. Quote from Elkanah Walker (page 40)
2. Male Sockeye Make Return, Spawns Hope (page 41)



**DAY ONE LESSON:** MAN and NATURE... THE CONNECTION

Place the transparency titled “Quotes of many people, many nations” (page 44) on the overhead projector. Mention that man has been “connected” with nature since the beginning of time. Begin with a class discussion surrounding the meaning of one or more quotes.

Distribute lists of “Quotes from many people, many nations” (page 42-43) to students. Have the students find a quote that “speaks” to a word listed on the Word Web from Unit One (see word web copied into their student journals from Overhead Transparency Word Web Sample, page 12). Match the quotes with the subject words on the Word Web. There may be more than one quote for some subjects, there may be none for others. Use all of the quotes. Make a note of which subjects have no quotes. Who/what has no voice? (This activity can be completed by individual students, small groups, or entire class, using the format illustrated below (see Quotes and the Word Web, Overhead Transparency pg. 39).

# of QUOTE	SUBJECT FROM WORD WEB it speaks for/about	Country or continent	Date (?)
3	Ecology	Japan	13th century

**JOURNAL:**

Place the transparency on EQUITY (page 38) on the overhead projector. After a short discussion, ask students to place this definition or a similar one in their journal. Students select one or more subject words from the Unit One Word Web for which there is *no matching quote*. Create a quote to match with the subject word you have chosen. Record in your journal.



**DAY TWO LESSON:** WHERE ARE THE SALMON?

Place the quote from Elkanah Walker’s description of the salmon runs (page 40) on the overhead projector. Hand out the Male Sockeye Make Return, Spawns Hope article (page 41). Compare and contrast the Male Sockeye article with Elkanah Walker’s description of the river. *Ask the students:* What has changed?

First, have the students calculate how many years have passed between the time of Elkanah Walker’s quote and the Male Sockeye returned to the Sawtooth Fish Hatchery (Answer: 160 years).



*Formula for determining generations:* A generation is defined by Webster as: The term of years, roughly 30 among human beings, accepted as the average period between the birth of parents and the birth of their offspring. Therefore, if you divide the number of years given by 30, you can determine how many generations are possible.

$$\text{TOTAL YEARS} \div 30 \text{ YEARS} = \# \text{ of GENERATIONS}$$

*Ask the students:*

- 1) How many generations have passed since Elkanah Walker said, “It is astonishing the number of salmon which ascend the Columbia yearly...”
- 2) What do you think will happen to the salmon runs in the next 6-7 generations? Why?
- 3) Is there any way to stop the decrease in salmon?
- 4) What could your generation do to end the decrease in salmon numbers in the Northwest?

**JOURNAL:**

Next, have the students create an Imaginary Future Generations List. Ask students to place themselves at the head (top) of an imaginary family tree. Chart the family tree, including all family members: creating the timeline as though you can foresee future generations of relatives. Have the chart progress for five generations.

*Ask the students:* How many people are in your family after five generations?



**DAY THREE  
CULMINATING  
ACTIVITIES:**

**WHERE ARE WE GOING FROM HERE?**

Teacher and/or students may select one or more of the following Culminating Activities for their final project on the Water Ways curriculum.

**CHOICE #1:** Students select a relative from the fifth generation of their family tree (created in Day Two Lesson, page 35). Using our three main themes of Ecology, Economy and Equity... compose a letter to this imaginary relative describing the conditions of our environment today. Include personal comments telling the relative about your concerns. What does the term **ECOLOGY** mean to your relative in the year 2150? Is human **ECONOMY** still dependent upon natural “ecological” resources-gifts? Have humans and nature found a way to live in harmony, with a high regard for **EQUITY**, in all of their decisions and behaviors? In a return letter, the imaginary relative describes the conditions of the natural environment during h/her life cycle, and comments about the changes, with respect to the natural environment, reported in your initial letter.

*Note to Student:* Your correspondence may take the form of a few paragraphs, poem, short story, song or (?). Be sure to enter copies of this two-way correspondence in your journal.



**CHOICE #2:** Students may choose to complete a current events project on the decline of salmon in the Pacific Northwest. Using newspaper and/or internet research articles, students or groups may study the facts about salmon today and yesterday. Students should make their own decisions about the reasons for declines in the number of salmon – based upon “several” research sources. Design an oral or written report, poster, mural, skit or play, or (?) for presentation to the class. *Note:* Remind students to keep a record of sources for future reference, as needed.

**CHOICE #3:** In the Water Ways curriculum, the author has focused on the concepts of **ECOLOGY**, **ECONOMY** and **EQUITY**. You have studied these definitions with your classmates, and completed activities surrounding these concepts. As your classroom ends its study of Water Ways, it is hoped that you have grasped the value of a balanced world...Ecology, Economy, and Equity...all important terms. Each concept must be considered equally, if nature and humankind are to coinhabit Mother Earth in harmony.

As a student, how can you carry this knowledge into your future, remember the three E’s correctly, and utilize your new learning for the sake of all? The author of this curriculum remembers the three E’s in this manner:

- ECOLOGY...“KNOW YOUR PLACE”
- ECONOMY...“TEND THE GARDEN”
- EQUITY...“PLAY FAIR”



How will *you* remember these terms? What phrases can you use to help remember the three E's and their importance? Create a poster for your classroom that features the three E's, your own matching phrases, and a symbol or drawing to exemplify each. *Note.* You may want to gather information before making your final decisions for your poster by asking classmates how they remember the three E's.

FINAL WHOLE CLASS ACTIVITY: Pass around a hat or box and have the students take one Watershed Weaving Game Card (pages 45-53). There are 26 Watershed Cards which include three each of the following: Water, Living; and one each of the following: Rivers, Soil, Earth, Land, Living, Farming, Energy, Playing, Metals & Minerals, Sheltering, Timber & Fiber, People, Wildlife, Fish, Birds, Trees, Plants, Erosion, Pollution, Floods.

Each student randomly picks a Watershed Gift Card from the pile. The students, while standing in a circle, each tell what gift they represent, while holding the card in front of them for other classmates to see. Each student is then instructed to *silently* choose two other Watershed Gifts (people) that their Gift seems closely related to. The students are then asked to move slowly and silently to a point equidistant from the two gifts with which they feel related. Allow three minutes for the dynamics of the system to approach equilibrium (never actually achieved). Ask students to freeze in position and observe the "order" of the group. Ask each student to point to the two Gifts they are related to. Play three rounds of this game to find a pattern to the "order" of the group (if apparent).

**JOURNAL:**

Each student is then asked to write a journal entry on:

1. Which two Gifts did my Gift relate to most closely? Why?
2. Did you observe any patterns in how the Watershed Gift system behaved? If so, what pattern(s) did you notice?



**WEB SITES TO CHECK OUT:**

**Visit the website of the PEACEKEEPERS:  
[earthway.net/treeofpeace](http://earthway.net/treeofpeace)**

**At this site, students can explore Thomas Jefferson's connection to the Iroquois Confederacy and learn how this two thousand-year-old document influenced the formation of our Declaration of Independence and Bill of Rights!**

**Check out the Water Ways Website:  
[www.lsw.org/scd](http://www.lsw.org/scd)**



Overhead Transparency

**Definition**

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**Equity:**

The quality of being fair or impartial.

Equity is about treating all life  
with fairness and dignity.



# Transparency/Article



## Transparency/Article

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### Male Sockeye Make Return, Spawns Hope

The second adult male sockeye salmon has made it to the Sawtooth Fish Hatchery in the Stanley Basin, four days after the first one arrived.

Monday's fish, like the first one, is 18 inches long, 3 years old and the product of Idaho's captive sockeye brood stock program.

It is also a jack, a fish that spent just one year in the ocean.

Like the high number of chinook salmon jacks returning to the Snake River this year, the presence of the sockeye could indicate next year will be better.

"We're optimistic about further returns this year and more returns next year," said Paul Kline, a fisheries biologist for the Idaho Department of Fish and Game who heads the sockeye program.

But Kline was not optimistic about this year's run until fish started trickling into the Snake River system in July.

In 1997, fewer than 1,000 sockeye smolts left the Stanley Basin. And last year only two sockeye were counted at Lower Granite Dam downstream from Clarkston, Washington. Just one made it back to the Sawtooth Hatchery.

Sockeye generally spend two years in the ocean before returning to spawn and die. But for unknown reasons, some of the fish that migrated to the ocean in 1998 are making an early return this year.

The Spokesman Review, Spokane, WA, August 18, 1999.

## Quotes of many people, many nations

1. Land is a community, its waters, soils, plants and animals all fit together not for our sake but for their own. *Aldo Leopold (1960), United States*
2. To rest under a willow tree, bathed in the cool evening breeze, and watch the moon rising above the trees, is sufficient to drive away selfish desires, and uplift every thought.  
*Kaibara Ekken (1630-1714), Teacher, writer and philosopher, Japan*
3. The ocean speaks and mountains have tongues – that is the everyday speech of Buddha . . . If you can speak and hear such words you will be one who truly comprehends the entire universe.  
*Dogen Kigen (13<sup>th</sup> century), Zen master and thinker, Japan*
4. When we are the Children of the Forest, what need have we to be afraid of it? We are only afraid of that which is outside the forest. *A pygmy of the Belgian Congo, Zaire*
5. Make the universe your companion, always bearing in mind the true nature of all creation – mountains and rivers, trees and grasses, and humanity.  
*Matsuo Basho (1644-1694), haiku poet and pilgrim, Japan*
6. You can't step twice into the same river.  
*Heraclitus (513 B.C.), Greece*
7. All you under the heaven! Regard heaven as your father, earth as your mother, and all things as your brothers and sisters.  
*Shinto, Oracle of Atsuta, Japan*
8. Nature is always wise in every part. *Edward Second Baron Thurlow (1781-1829), United Kingdom*
9. The ultimate goal of farming is not the growing of crops, but the cultivation and perfection of human beings. An agriculture joining animals, crops, and human beings into one body existed as the mainstream of Japanese farming up to modern times.  
*Masanobu Fukuoka, Visionary, farmer and poet, Japan*
10. Our story is in the land . . . It is written in those sacred places, that's the law. Dreaming place... you can't change it. No matter who you are. No matter you rich man, no matter you king. You can't change it . . . Rock stays Earth stays I die and put my bones in cave or earth...Soon my bones become earth . . . All the same My spirit has gone back to my country . . . My mother.  
*Big Bill Neidjie, Bunitj elder, Australia*
11. I will sing the praises of this exalted peak as long as I have breath.  
*Akahito Yambe, 8<sup>th</sup> century poet, expressing reverence for Mount Fuji, Japan*
12. Yes, the young sparrows if you treat them tenderly thank you with droppings.  
*Issa Kobayashi (1763-1828) haiku poet, Japan*
13. There is craft in this smallest insect, with strands of web spinning out his thoughts; In his tiny body finding rest, and with the wind lightly turning. Before the eaves he stakes out his broad earth; For a moment on the fence top lives through his life. When you know that all beings are even thus, you will know what creation is made of.  
*Sugawara No Michizane (845-903) "The Spider", Japan*

## Quotes of many people, many nations

14. We are born from the womb of our mother; we are buried in the womb of the earth.  
*Ethiopian proverb*
15. Whenever a person breaks a stick in the forest, let him consider what it would feel like, if it were himself that was thus broken.  
*Nigerian proverb*
16. The Forest is Good.  
*Makubasi, Pygmy father; rocking his infant son, singing his praises to his beloved forest home, Africa*
17. Trees and plants bring the magnificence of heaven to the human spirit.  
*Tachibanano Toshitsuna (11<sup>th</sup> century), Author of the bible of Japanese gardening, Sakuteiki*
18. The earth is mother of all.  
*Ugandan proverb, Central East Africa*
19. The Mother told us to look after all mountains. They are ceremonial houses. We know that all the mountains we see are alive  
*Mama Bernardo, Kogi woman, South America*
20. As I get older, I burrow more and more into the hills. The Great Spirit made them for us, for me. I want to blend with them, shrink into them, and finally disappear in them. . . . All of nature is in us, all of us is in nature. That is as it should be.  
*Pete Catches, Sioux medicine man*
21. Every society needs . . . sacred places. They help to instill a sense of social cohesion in the people and remind them of the passage of the generations that have brought them to the present. A society that cannot remember its past and honor it is in peril of losing its soul.  
*Vine Deloria, Jr., standing Rock Sioux, scholar, writer and professor of law*
22. I frequently tramped eight or ten miles though the deepest snow to keep an appointment with a beech tree, or a yellow birch, or an old acquaintance among the pines.  
*Thoreau (1817-1862) Winter Visitors, United States*
23. Gie me ae spark o' nature's fire that's a' the learning I desire.  
*Robert Burns (1759-1796), Scotland*
24. I feel it with my body, with my book. Feeling all these trees, all this country . . . When this wind blow you can feel it. Same for country . . . You feel it, You can look, but feeling . . that make you.  
*Big Bill Neidjie, Bunitj elder, Australia*
25. I was enchanted - overwhelmed - with the beauty and the grandeur of everything I saw. It lay just as nature had made it, with nothing to mar its virgin beauty. I determined that I would possess it.  
*James N. Glover, Spokane, WA, May 11, 1873*
26. . . . the Japanese mind is so attached to the earth that it would not forget, however mean they may be, the grasses growing under the feet.  
*Daisetz Suzuki, Zen Buddhist scholar, Japan*

Overhead Transparency

**Quotes of many people, many nations**

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5 Make the universe your companion, always bearing in mind the true nature of all creation – mountains and rivers, trees and grasses, and humanity.

*Matsuo Basho (1644-1694),  
haiku poet and pilgrim, Japan*

21 Every society needs . . . sacred places. They help to instill a sense of social cohesion in the people and remind them of the passage of the generations that have brought them to the present. A society that cannot remember its past and honor it is in peril of losing its soul.

*- Vine Deloria, Jr., standing Rock Sioux,  
scholar, writer and professor of law*

18 The earth is mother of all.

*- Ugandan proverb , Central East Africa*

# Watershed Weaving Game Cards

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**LIVING**

**LIVING**

**LIVING**

# Watershed Weaving Game Cards

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**RIVERS**

**SOIL**

**EARTH**

# Watershed Weaving Game Cards

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**LAND**

**LIVING**

**FARMING**

## Watershed Weaving Game Cards

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**ENERGY**

**PLAYING**

**METALS &  
MINERALS**

**Watershed Weaving Game Cards**

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**SHELTERING**

**TIMBER &  
FIBER**

**PEOPLE**

# Watershed Weaving Game Cards



**WILDLIFE**

**FISH**

**BIRDS**

# Watershed Weaving Game Cards



**TREES**

**PLANTS**

**EROSION**

# Watershed Weaving Game Cards



**WATER**

**WATER**

**WATER**

## Watershed Weaving Game Cards

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**POLLUTION**

**FLOODS**