LEARNER OUTCOME:
Students will be able to illustrate how the process to achieve harmony and balance plays a vital role in American Indian philosophy and in daily lives of American Indians.
**LEARNER OUTCOME**

Students will be able to illustrate how the process to achieve **harmony and balance** plays a vital role in American Indian philosophy and in daily lives of American Indians.

**ATTRIBUTES**

This outcome includes:

- recognizing the American Indian belief in the interrelatedness and connectedness to/with all living things.
- realizing the role of elders in preserving and teaching the beliefs and values.
- understanding that the concept of harmony and balance exists in many aspects of life – for example: science, health, economics, family life, and social issues.
- describing the ways in which “Western Civilization” interrupted and disrupted the process of harmony and balance for American Indians.

**RATIONALE**

The health and well-being of both humans and wildlife are dependent upon the quality of the natural environment. All forms of life are interdependent and the use or misuse of one will affect others. It is important for students to study the practices of American Indians who have traditionally understood the balance of nature and who believe all life must be treated with reverence and respect.

The wellness of the individual results largely from a balance of physical, emotional and mental health. The well-being and stability of a family is enhanced by seeking harmony and balance. Similar statements can apply to society as a whole, social issues as well as economic issues. As students seek ways to solve problems on personal as well as societal levels, it is advantageous for them to have access to philosophies and ideas that are relevant. This will enable students to apply informed decision-making process to promote healthy lifestyles, social well-being and effective stewardship of the environment.

**CULTURAL CONTENT/AMERICAN INDIAN WORLD VIEW**

While American Indian cultures exhibit rich tribal diversity, one theme which is woven throughout American Indian oral traditions, ceremonies, and spiritual beliefs is that of harmony and balance. American Indian philosophies express the idea that spiritual well being depends on living in harmony with all beings, including human, animal, plant and the physical world.
The theme of harmony and balance permeates American Indian spiritual philosophy. This theme is based upon the belief that all nature was created for a purpose, that all are relatives, that all depend on each other in a web of interrelationship, and that human well-being depends on maintaining harmony with all of creation. These beliefs contrast with many of the premises and values of Western civilization. As Western philosophy was carried out in the Americas, it came to be based on the belief that Western European civilization had a “manifest destiny” to conquer others and dominate them. Western philosophy also includes a belief in human progress. Inherent in this idea is the notion that agents of Western civilization had the right to exploit nature for their own benefit. They were not disturbed that their wholesale exploitation of nature was upsetting the harmony and delicate balance that exists between all of creation, or what ecologist would later call the “ecosystem.” For them, plants, animals and minerals were resources, lifeless objects meant to be used by human beings. They were not seen as living beings to be shown respect.

These differing philosophies can be seen in Western vs. American Indian approaches to science. To understand the natural world, scientists dissect things. They seek to understand entities by reducing them down to their smallest parts. The American Indian approach is holistic. The natural world is observed by looking for relationships between various things. Vine Deloria, Jr., scholar, author and member of Standing Rock Sioux illustrated this approach in recounting how the Yankton Sioux, knew when it was time to return from the buffalo hunt to their cornfields to harvest the crop. They observed that corn and milkweed mature at nearly the same rate. By observing the maturing milkweed, they knew exactly when to return to their village cornfields. This holistic worldview is also demonstrated in the traditions of the Anishinabeg (Ojibwe/Chippewa). As winter came to a close, they watched for the appearance of the crow to signal the running of maple sap, and a return to the maple sugar groves.

American Indian spiritual beliefs extend the concept of harmony and balance to the individual. A person is valued as whole when the physical, mental, spiritual and emotional selves exist in harmony. American Indians often use the symbol of the circle to express this idea. The circle reminds people of the importance of living as a whole person. A person suffering from mental or physical illness is believed to be out of harmony with the many facets of self. Traditional American Indian healers have the knowledge to help restore this person to health by bringing all that represents the self back into balance.

Well-being in American Indian family life is also understood in terms of harmony and balance. A family who lives in harmony functions as a unit with each family member contributing to the whole. Family elders are significant in this regard because it is the elders who teach family and tribal traditions to the young and emulate strength of the family. Mutual respect, rather than power over others, is the guiding principle of healthy family life.
The idea that well-being depends on harmony and balance within the individual, between family members, within the human community, and between all of creation, has been expressed in American Indian songs and poetry for centuries:

‘Grandfather, Great Spirit, fill us with the light.  
Give us the strength to understand and eyes to see.  
Teach us to walk the soft earth as relatives to all that live.”

-- from Dakota prayer quoted in  
*The Gift is Rich* by E. Russell Carter

“Mita-Kuyapi-Owasub” – “All My Relatives”

Dakota belief
1. DEVELOPMENTAL CHECKPOINT

Primary students reveal in discussions, writings and illustrations that they understand and appreciate the importance of water to all living beings and that they have knowledge, concern and commitment to help care for the existing water supply. Primary students also express an understanding of the American Indian teachings regarding the environment handed down through oral tradition and stories.

OUTCOME INDICATORS

- Checklist to record responses in class discussions
- Checklist to evaluate lists and drawings.

CURRICULUM INTEGRATION

Communication, Science, Health, Language Arts

LESSON OUTCOMES

Students will be able to:

- demonstrate an understanding that American Indians have always known the importance of maintaining nature as they found it, never taking more than is needed nor wasting what one has.
- recognize and explain how water is an important and necessary element for all living things.

INSTRUCTIONAL STRATEGIES

1. Prepare students for listening to American Indian storytelling.

2. Teacher, elder or community member tells story. Use illustrations if possible. Tell a story which emphasizes the importance of water: “The Hero Twins and the Swallower of Clouds” or “Koluscap and the Water Monster.” These stories are found in Keepers of the Earth. Two Ojibwe stories involving water and also offering explanations and lessons are “Waynabozho and the Ducks” and “Waynabozho and the Raccoon,” from Traditional Indian Stories, Anoka-Hennepin Independent District 11, Indian Education Program.

3. Ask students to name animals or other living beings that need water to live and grow. Ask them to explain how they know this.

4. Go on a nature walk with students to see water in a natural setting (pond, brook, river, lake, swamp). Have students list living beings that live in the water. Students might create drawings upon returning to the classroom.

5. Question to think about:

- Is there enough water in your neighborhood? Where does your water come from?
• Where does the water go once you have used it? Is there an unlimited supply of water in the world? What could you do to conserve your water supply?

Note: Oral traditions are sacred to American Indians and must be treated with respect. Traditional stories, for example, are to be told during winter, when snow is on the ground.
VOCABULARY

MATERIALS
Cards, pencils, drawing supplies

RESOURCE LIST


Minnesota Department of Education. Minnesota Positive Indian Parenting. Roseville, MN, 2001


Grand Rapids Indian Education Program. A Gift From the Trees: A Science and Social Studies Lesson for Elementary Schools. ISD #318 Indian Education Program.

Martin, David. A Long Time Ago.


Website: Minnesota Sea Grant: Superior Science for You
www.seagrant.umn.edu/index.html
Website: National Wildlife Federation-Lake Superior Project
www.nwf.org/lakesuperior/index.html

Website: Project Wet-Water Education for Teachers
Minnesota Department of Natural Resources
www.dnr.state.mn.us/waters/project_wet/curricwet.html

ASSESSMENT TASKS
• Students participate in discussion following presentations by teacher.
• Evaluate circle discussion regarding nature hike.
• Students create lists and drawings of living beings.

ENRICHMENT ACTIVITY
• Students illustrate water in its various forms.
• Students cut pictures to make a “We All Need Water” collage.
• Students will be able to discuss the importance of trees to the survival of Anishinabe people. Use the lesson from Gifts From the Trees, Grand Rapids Indian Education Program.
• Students make a collection of all products that are made from plants.
• Students will participate in a second activity: “Lessons from Mother Nature”. This is an activity that can be adapted from the Minnesota Positive Indian Parenting Manual, Session 6, page 35.

LINKAGES
Social Studies
2. DEVELOPMENTAL CHECKPOINTS

Intermediate students demonstrate in discussions and writings an understanding of varying points of view and diverse value systems. They also show a connection between the belief systems of people and how they deal with the environment. Intermediate students also model sound problem-solving techniques in clearing up simulated environmental disasters. The students relate the power of prevention as revealed in America Indian literature.

OUTCOME INDICATORS

- Rubric to evaluate students’ “clean up” solution for a simulated environmental disaster.
- Written or oral analysis of a disaster from American Indian and European American viewpoints.

CURRICULUM INTEGRATION

Oral tradition, Science, Environmental Issues: Food Web, Endangered and Threatened Species

LESSON OUTCOMES

Students will be able to:

- point out the impact of people on their environment (specifically birds).
- summarize the American Indians’ perspective on the environment and humans’ effect on it
- analyze and evaluate a given problem in the environment and invent a plan to solve the problem on an experimental level.

TEACHER BACKGROUND INFORMATION

The story “Manabozho and the Woodpecker” in Keepers of the Animals, illustrates the respect of the Ojibwe for nature and their spiritual connection to “Mother Earth.” It also symbolizes the cooperation that humans need with nature. The story, “The First Flute” in Keepers of the Animals, explains why American Indians honor the redheaded woodpecker by carving it on the flute. This story demonstrates the respect the Lakota have for their environment and the birds that live in this environment.

It is common for American Indians to make a tobacco offering when they harvest plants or animals. This would be an offering of thanks to the living being for giving its life and existence. Birds, like other living beings, are special to American Indians, and some birds, like the eagle, are considered sacred.
INSTRUCTIONAL STRATEGIES

1. Students read and discuss “Manabozho and the Woodpecker” and “The First Flute.” Teacher and students reflect on stories and what they reveal about American Indian viewpoints regarding the environment. Seek a speaker from the Indian community at this point.

2. Students locate articles about environmental disasters (oil spills, chemical spills, top soil runoff) in periodicals. Websites can also be included in this assignment.

3. Students discuss articles contrasting European American and American Indian perceptions of the environment.

4. Students review lab techniques.

5. Cooperative groups work on simulated disasters. Each group receives:
   - feathers dipped in a multiple oil substances.
   - paper towels, liquid dish soap, hand soap, water, powdered soap and other items available.

6. Students are to clean the feather, returning it to its original form.

7. After some time of cleaning, the students receive a clean feather and are to share observations about “their” feather and the clean feather.

8. Discuss: Have the feathers really been returned to original condition? What might happen to the bird if the oil in not cleaned off its feathers?

9. Students should now be aware of how difficult it would be to clean a whole bird full of oily feathers.

VOCABULARY
Megissogwon – the Sprit of Fever
Sturgeon – a large bottom dwelling fish
Tobacco – traditional use is as an offering to show respect

MATERIALS
Feathers, oil (various), paper towels, soap (various), water, beakers or bowls

RESOURCE LIST
Elementary:


Website: Minnesota Department of Natural Resources
www.dnr.state.mn.us

Website: Minnesota Pollution Control Agency
www.pca.state.mn.us/kids

Website: Minnesota Sea Grant: Superior Science for You
www.seagrant.umn.edu/index.html

Website: National Wildlife Federation-Lake Superior Project
www.nwf.org/lakesuperior/index.html

**ASSESSMENT TASKS**
- Groups discuss readings.
- Participate in simulation clean-up.
- Formulate conclusions following simulations of natural disasters.

**ENRICHMENT ACTIVITY**
- Students find a local environmental problem to help solve.
- Students research all products made from animals and display the information on a bulletin board.

**LINKAGES**
Social Studies, Language Arts

_Idea from Keepers of the Animals_
3. DEVELOPMENTAL CHECKPOINTS
Middle School students will be able to distinguish between actions that are harmful and beneficial to the environment and evaluate the appropriateness of making changes in their own behaviors based on their own sense of environmental ethics after hearing the Ojibwe teaching in stories such as “Manabozho and the Maple Trees.”

Middle School students will also realize connections between oral tradition and contemporary environmental literature.

OUTCOME INDICATORS
- Critique of list of ways individuals impact environment
- Copy of “Code of Environmental Behavior”
- Checklist or progress report on using the “Code” for one week

CURRICULUM INTEGRATION

LESSON OUTCOMES
Students will be able to:
- demonstrate an understanding that the belief system of a culture can be observed through stories and practices.
- explain the impact that each person has on the environment.
- develop a Code of Environmental Behavior.
- illustrate personal priorities and projected results.

TEACHER BACKGROUND INFORMATION
Be informed about such issues as local environmental concerns such as deformed frogs that were found in Minnesota, the pipeline spills, the Prairie Island Nuclear Waste Plant, the high level of lead and mercury levels found in our environment, and local recycling regulations.

INSTRUCTIONAL STRATEGIES
1. Involve students in discussion of stories such as “Manabozho and the Maple Trees” in *Keepers of the Earth*, and how these stories relate to possible problems in the environment.
2. Discuss the impact that each person has on the environment daily. Examples: using electricity to make breakfast, wearing clothes made from various natural resources and transported to stores, using varied products, and the choosing of recreation and entertainment options. Students choose a recorder to list on the board while the class brainstorms the ways individuals affect the environment.

3. Students create their own “Code of Environmental Behavior.” The code is strictly or the person who creates it and should take into consideration those daily actions that are harmful, not harmful, and beneficial to the environment.

4. Volunteers may share their “Code of Environmental Behavior” either with the class or in small groups. The entire code or portions may be shared. Encourage students to describe the reasoning that went into the construction of their Code. Encourage students to discuss if other family members follow all, or part of their Code. They may choose to illustrate a part of it to convey the values involved.

5. Students use Code for one week, keeping track of how easy or how difficult it is to live by. Quantify results on checklist or progress report.

**VOCABULARY**
- environment – atmosphere, habitat, ecosystem
- conservation – protection, keeping
- responsibility – answerable for acts or decisions
- lifestyle – habits, characteristics and way of living

**MATERIALS**
- Chalkboard, marker board or flipchart to record brainstorming

**RESOURCE LIST**
Secondary:


Video: “To Protect Mother Earth.” Narrated by Robert Redford. Color (60 min.) Westport, CT: Cinnamon Productions. Phone (203) 221-0613. n.d.

Film: “We Are These People.” Narrated by Will Samson. (15 min.) Arcata, CA: Shenandoah Film Productions. Phone: (707) 822-1030. n.d.
Website: Great Lake Fish and Wildlife Commission
www.glifwc.org

Website: Minnesota Pollution Control Agency
www.pca.state.mn.us/kids

ASSESSMENT TASKS
• Participate in discussions and contribute to brainstorming list.
• Create a Code of Environmental Behavior.
• Follow Code for at least one week.

ENRICHMENT ACTIVITY
• Design T-shirts, billboards, bumper stickers, video-based themes derived from their Code of Environmental Behavior.
• Students will collect articles on environmental issues. Find articles that represent multiple opinions.
• Students will interview parents, grandparents or others about their family’s view concerning environmental issues and how these views are passed down from generation to generation.
• Students will locate environmental groups in their area and invite them in to speak about environmental issues. Students can investigate how these groups work with the American Indian tribes and communities in their area.

LINKAGES -- Social Studies, Language Arts
4. DEVELOPMENTAL CHECKPOINTS
Senior High students define and describe a food web and a simple food chain using diagrams and oral explanations. They explain how changes in the food web affect the entire web. Senior High students express how the scientific view of a food web is similar to and different from traditional Ojibwe and Dakota values and teachings.

OUTCOMES INDICATORS
- Critique of graphic organizer illustrating a food chain in student’s own area.
- Evaluation of essay describing the Ojibwe and Dakota view of living things.
- Rating scale for simulation exercise demonstrating effects of tampering with food chain.

CURRICULUM INTEGRATION
Language Arts, Oral Tradition, Science, Environmental Issues: Food Web, Endangered and Threatened Species, Conservation

LESSON OUTCOMES
Students will be able to:
- define a food web and describe a simple food chain.
- understand how a food chain becomes a food web.
- understand how changes in the food web affect the entire web.
- compare/contrast scientific view of a food web and traditional Ojibwe and Dakota values and teachings.

TEACHER BACKGROUND INFORMATION
It is impossible to separate the traditional Ojibwe and Dakota way of life from the belief system. Judeo-Christian religions teach that the human race is to be the steward of nature, whereas the Anishinabe believe that humans are an intricate part of nature, and must live in harmony with it. If a person holds those views, hunting and gathering is not a sport; it is a way to live. Harvesting a plant, taking a deer, or catching a fish for its meat, is taking the life of a living being so that people can continue to live. The Creator placed all beings on this earth and they should be treated with gratitude and respect. It is believed that people, plants and animals on Earth have a purpose to fulfill in life and that we as brothers and sisters must seek to understand and respect that purpose.

INSTRUCTIONAL STRATEGIES
1. Students create a food web by representing its components.

2. Students discuss their observations and how they relate to accepted scientific principles.
3. The teacher will present traditional Ojibwe and Dakota views on the subject and lead a discussion on those views.

Establish the components of the food web(s). Start with decomposers (bacteria), which will provide food for the producers (plants). Work your way up the food chain ending with humans. An example might be: bacteria, aquatic plants, plankton, minnow, perch, pike, humans.

Students will role-play being parts of the food chain. They will be assigned a part and be given a nametag identifying their role and if they are a decomposer, producer or consumer. Begin with the lower end of the food web (bacteria). Establish what other organisms will utilize it as a food source. Those students would then hold the end of a string passing from the food source to the consumer. As in the example, one section of string would go from the bacteria to the plankton. Another would also go from the bacteria to the aquatic plant. Because plankton might also eat the plant, a string should pass from the plant to the plankton. In this manner, work up the food web. Pointing out the interrelationships as the web is established. Be sure to point out the nature of the web as it develops.

After the web is completed, experiment with eliminating different organisms within the net. When an organism is removed, it drops its ends of the string which may eliminate the food source for those organisms above it or cause them to become more dependent on other sources causing severe competition among the consumers and lowering the web’s carrying capacity for the organisms higher on the chain. Try eliminating humans from the chain and discuss the effect on the rest of the chain. Eliminate bacteria or any of the lower organisms and discuss the effects.

Discuss how the Ojibwe and Dakota view of the ecosystem is similar to and different from the scientific view of the ecosystem.

**VOCABULARY**

- Ojibwe – name of people known as Ojibwe or Chippewa
- Anishinabe – Ojibwe word meaning “The People”
- Dakota – name of people known as Sioux
- Habitat – environment
- Decomposer – that which decays, breaks down, dissolves
- Ecosystem – a system formed by the interaction of a community of organisms with their environment

Concepts largely from Western world view:
- Predator – living by preying upon another
- Prey – n. quarry, game; v. hunt, track down, go after
- Producer – one who makes, raises or creates something
- Consumer – user
Concepts from American Indian world view:
harmony – order, proportion, unity, amity
balance – equilibrium, stability

MATERIALS
• name tags (to identify parts of the food web)
• marker (to write on tags)
• string or yarn (to be cut in three foot lengths and longer, these will be the strands of the food web and will visually reinforce the concept)
• scissors (to cut string)

RESOURCE LIST
Secondary:


Video: “To Protect Mother Earth.” Narrated by Robert Redford. Color (60 min.) Westport, CT: Cinnamon Productions. Phone (203) 221-0613. n.d.

Film: “We Are These People.” Narrated by Will Samson. (15 min.) Arcata, CA: Shenandoah Film Productions. Phone: (707) 822-1030. n.d.

Website: Great Lakes Indian Fish and Wildlife Commission
P.O. Box 9, Odanah, WI 54861
www.glifwc.org

Website: Minnesota Department of Natural Resources-Project Learning Tree
www.dnr.state.mn.us/forestry/learning_tree/pltcurr.html OR www.plt.org
Website: National Wildlife Federation-Lake Superior Project
www.nwf.org/lakesuperior/index.html

Website: Wisconsin Sea Grant-Fish of the Great Lakes
www.seagrant.wisc.edu/greatlakesfish/

ASSESSMENT TASKS
- Make graphic organizer depicting food chain.
- Write essay describing Ojibwe or Dakota worldview on topic.
- Participate in simulation activity.

ENRICHMENT ACTIVITY
- Students plan presentation of food web simulation for an assembly of younger students.
- Create a video incorporating ideas from this lesson.
- Develop a food web board game.
- Collect news articles concerning human’s tampering with food chain.
- Investigate the genetic tampering of wild rice. Discuss the American Indian perspective on this issue.
- Adapt “Life Cycles” to classroom activity, from Waterdrum Science: Science Through American Indian Arts and Culture, Chapter 6.
- Students will research contemporary American Indian Environmentalists (example-Winona LaDuke).

LINKAGES
Social Studies/Environmental Sciences

-- Adapted from a lesson by David Skrupky, Infusing Ojibwe World View into Science Curriculum, Northwestern Wisconsin