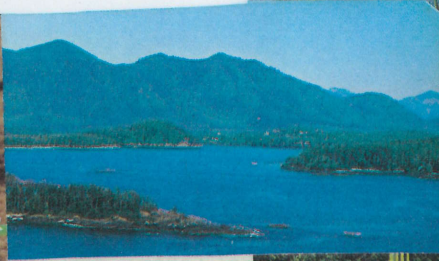


# The Gifts of Nature Web

## 1. The Gift of LAND PROTECTION



Plants shelter and protect the land where they grow from storms and flooding, and baking sun.



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**Activity Name: Gifts of Nature Web Activity**

**Ages: 6-12 (also works for older students as well)**

**Activity Level: Low**

**Length of time: 20 to 30 min**

**Number of Participants: 10-20**

**Concept:** This activity is great for illustrating connections among the ecosystem services that are provided by Nature for all life to survive. It also is a visible demonstration of these connections and how interrelated we all are with them.

**Materials Required:** 17 Gifts of Nature cards (ecosystem services), spool of strong string or twine (with 25 to 50 m), a living tree, 3 or 4 pictures of animals (both marine and land), and one person (leader/facilitator).

**Introduction:** Nature's gifts (or ecosystem services as they are mostly known) are those processes, mostly invisible to us, that Nature provides to support and cycle all living and non-living components of the Earth. This activity uses 17 that have been identified in the literature some of which are tied to activities or interests of humans (e.g. genetic diversity and recreation), while most are processes that create and sustain the conditions required by all living things to thrive on this planet.

The gifts of nature cards created for this activity provide short descriptions of what each Gift provides in Nature. These gifts may be new to your students, so we recommend that you do a some pre-exposure to them before undertaking this activity. A good in class exercise is to put the cards around your room and have the class in groups of three or five (depending on your class size). Read them all and have a brief discussion on each gift and gain their understanding of what each gift is in Nature. After this give them this challenge:

They are space pioneers heading to a new planet and their spaceship only has enough room to take six (6) of the gifts or services that exist on Earth. Each group's challenge is to decide which six gifts are the most important for them to take to a new planet so that they can survive there. Have them go around and read each card and consider in their group (by consensus or majority) which to take. More than one group can take the same gift. Have them record that six they have chosen and why they chose each. After they have all made their choices, have each group share these choices and why with the rest of the class. What should become apparent is that they cannot choose just 6 and expect to survive and that all the gifts are interrelated and interdependent and virtually all must be available to ensure human survival.

This activity is a variation on web of life activities, where the participants take on a role in nature and use the string to make the connections to each other. In this activity the participants role play the Gifts of Nature and connect themselves to other gifts and to living things (trees, animals and people).

**Methods:** Go outside and find a suitable tree with space around it. Place the 17 Gifts of Nature cards around the base of the tree. Intersperse with these a selection of animal pictures and you select one of your leadership team to stand next to the tree as well.

Have the participants move around the tree, reading and gaining understanding of the Gift's of Nature - your leadership team can assist with this.

Depending on the numbers, the participants then choose one or more of the Gift's of Nature that they like or understand best.

Have the participants form a circle around the tree with the Gifts they have chosen at their feet. The animal pictures and person remain beside the tree and are not part of the choices.

The leader/facilitator of the activity can now explain through demonstration how the spool of string will be used to make the web connections among the Gifts and living things. For example, the Gift of Pollination supports the tree, certain animals and people as well as being dependent on the Gift of Cycling and Cleaning Water. The string would be run to and from each of these identified connections. The participants hold onto the string each time it comes to them.

Now have the participants in turn identify their connections to other Gifts and the living things. As they progress and more and more connections are identified, an interwoven web is produced.

Have the participants each pull on the connections that they hold to feel the mutual support.

At this time the leader/facilitator can ask the group what they have learned from this activity in terms of the Gifts of Nature. Or:

- Have some of the participants trace all the connections they have with others and tell which surprised them or were unexpected and why. Or,
- Participants can suggest ways in which this interconnected web might be weakened (natural or man caused ways).

- Break the web by letting different nodes of connections go to illustrate the loss of support when the gifts break down.
- A follow up activity would be to share the experiences this activity provided to each of your class and have them record this experience.

### **Tips for Teachers:**

- An option for this activity is to ask the participants at the start to predict, vote on or state which of the gifts are unconnected or unimportant to the living things in the centre of the circle (tree, animal, human). By the end of the activity it should be apparent that all the gifts are important and mutually dependent.
- The most powerful result of this activity is when the participants themselves have recognized the connections their chosen gift(s) have with living things and other gifts. If you must prompt or facilitate to gain some more connections make this a group activity not just focusing on one person's connection. Another reinforcing component is that at certain times in the building of connections, stop the activity. Then with the group, trace through some of the connections that have already been made and name each connection and why it is connected (ex. how does it support other Gifts or the living things?)
- Each of the Gifts themselves can be developed as an activity by itself. In our experience, ones such as pollination, soil formation and food production are excellent for this purpose and they are interdependent gifts.
- You may run this activity many times as your participant's understanding of the Gifts increases. The number of connections recognized each time could be a measure of this increased understanding.

### **Background facts and information:**

The identification of the ecosystem services was the result of work done on trying to equate the value of these provided by Nature in monetary terms. The benchmark work was done in 1997 to illustrate that the total value of these services in economic terms outstrips the total value of all the world's Gross National Product (GNP). The meaning behind this comparison is that the value of these services are not accounted for in our economic thinking and that because of their significance to our very survival, they need to be.

The activity is not based on this economic valuation, but more on working towards the understanding of interdependence of the gifts and all the benefits they provide to all living things including ourselves.

**Literature Cited:**

R. Constanza et.al., (1997) The Value of the World's Ecosystem Services and Natural Capital, Nature Vol. 387.

G. Daily, ed., (1997) Nature's Services - Societal Dependence on Natural Ecosystems, Island Press.