HOW-TO-DO ACTIVITY- PLANT GROWTH MONITORING
SUGGESTED PLANTS & DATA COLLECTION

Suggested Plants for Monitoring

Engaging students in collecting data about plant species teaches valuable skills and can provide meaningful information. Short-term monitoring of fast growing plant species offers students an opportunity to gain skills in collecting data, and to gain understanding about conditions for plant growth.

Short-term monitoring during one school year requires plant species that have predictable, measurable growth. Ideal species for elementary school students to monitor include fast growing seedlings, especially those from the *Growing Native Seeds* activity, and deciduous herbaceous perennials (plants that die back to the ground and return in spring). Many newly planted shrubs and trees in habitat restorations will also develop measurable new growth in a short period. The list below provides suggestions for these species.

Long term monitoring over several years can provide meaningful restoration information, especially as it relates to hydrology, soil type, habitat types and plant communities. One strategy that enables students to provide stewardship to restoration sites over a period of years, involves "classroom adoption" of a particular site or plot. The succeeding classes of the "adopting teacher" collect plant growth data on the same plants over several years. A second strategy involves a "school-wide adoption" in which students continue to monitor "their plants" as they move through the grades, each year adding new data that relates to their studies, such as hydrology, soil type, etc.

Consult with habitat restoration stewardship groups, native plant specialists, or refer to the Starflower Plant ID cards to locate listed plant species. Note: It is easiest to locate species in fall, while field ID characteristics are present. Native plant specialists can assist with field ID while plants are dormant.

Herbaceous perennials	**Fast growing seeds**	**Newly planted, young shrubs & trees**
Bleeding heart	Tufted hairgrass	Red osier dogwood
Lupine species	Puget sound fescue	Wild rose
Lady fern	Western mannagrass	Mock orange
Siberian miner's lettuce	Idaho fescue	Red flowering currant
Goat'sbeard	Slough sedge	Red alder
Western coltsfoot	Goldenrod	Oceanspray
Pearly everlasting	Fireweed	Red elder
Yarrow	Red columbine	Grand fir, Douglas fir
Hedge nettle (not stinging nettle)	Siberian miner's lettuce	Vine maple
		Snowberry
		Indian plum
		Willow species

Collecting Data

Fill out the 'Plant Growth Monitoring Record' with student name and monitoring date (see below). As a group, choose and mark a site where you will measure temperature each visit. Use the air and soil thermometers to assess the air and soil temperatures. (Note: If time or resources permits, have each students record the temperatures where their plant is growing).

Choose a measurement scale (English or metric). Distribute measuring devices (such as plastic rulers, wooden yardsticks and cloth tapes). Have students measure the height of the plant and record their measurements in the 'Plant Growth Monitoring Record'.

Return to the classroom, and transfer the data to the 'Growth Monitoring Chart' as shown in the first column on the right.

At each consecutive monitoring activity, repeat the activity and record the information in the appropriate column. When complete, draw lines between the data points (dots) to create 3 line graphs. Using tracing paper and colored pencils, show the relationship between line graphs and draw conclusions.

PLANT GROWTH MONITORING RECORD

Student name: *Andrew*

Plant #1 name: *Pearly everlasting*

Date:	3/12	4/10	5/15		
Height	1	3	6.5		
Soil Temp.	48	56	64		
Air Temp.	50	60	68		

Plant #2 name: *Red osier dogwood*

Date:	3/12	4/10	5/15		
Height	20	26	34		
Soil Temp.	48	56	64		
Air Temp.	50	60	68