

**Plans of Action: Enhancing Public Awareness of Meteorology  
through Local Weather Education Resource Teachers.**

Steve M. Carlson,  
Atmospheric Education Resource Agent, Local Implementation Leader-Datastreme & Water  
and the Earth Systems Project, Hermiston School District, Hermiston, OR

Drs. Geer, Weinbeck, Smith and Moran along with the National Science Foundation, the National Weather Service and the National Oceanographic and Atmospheric Administration have evolved a program in weather and oceanographic education that ends with a Plan of Action by teachers taking their courses. These plans of action are essential to enhancing public awareness of meteorology and oceanography in the local area. As a Local Implementation Leader for the Datastreme project in Oregon, my intention is to share the type, effectiveness and implementation of my students Plans of Action. This presentation will showcase the relationship between the Plans of Action prepared for the Datastreme class and the national, state and local teaching standards. It will also show how local weather education teachers have enhanced community understanding of meteorology & oceanography across the State of Oregon.

The State Standards support the implementation of the plans of action. Teachers have consistently informed us that our instruction gives them a handle to meet the following benchmarks and state standards.

For example under the Content Standards the following unifying concepts and process apply.

- \* Change
- \* Constancy
- \* Systems
- \* Models
- \* Equilibrium

**Benchmark 2**

- \* Rate of change
- \* Cycle
- \* Diagram parts of a system
- \* Cause & Effect

**Benchmark 3**

- \* Environmental Cycles
- \* Dynamic Forces
- \* Predictions
- \* Scientific Model

The parts of the Datastreme course that specifically support our state standards and help teachers implement their plans of action are:

- \* Water Cycle
- \* Climate Cycles
- \* Motions/Forces
- \* Energy/Matter
- \* Nature of Science
- \* Science & technology.
- \* Radar/Satellites

State Benchmark in the Earth Sciences

- \* Changes in the Earth's Surface
- \* Parts of the Water cycle

State Benchmark level 2 approximately 8th grade

- \* Structure of the earth and atmosphere
- \* Limited Resources
- \* Water Cycle

State Benchmark level 3 at approximately 10th grade

- \* Marine/continental air mass interaction
- \* Uplift of marine air mass
- \* Rivers, clouds, streams, ground water & oceans.
- \* Severe Storms
- \* Atmospheric Structure
- \* Temperature
- \* Solar Energy
- \* Fluid Dynamics

The following is a listing of Meteorology and oceanography plans of action:

Implementing how the watercycle effects climate and weather patterns.

Networking weather stations in schools in Bend, Oregon.

Setting up a weather monitoring system in an elementary school using NOAA weather information.

Integrating the datastreme information into the 6th grade curriculum in Pilot Rock Oregon.

Incorporating the Datastreme homepage into the "Stump the Meteorologist" contest in Mr. Mansfield classroom at Sandstone.

Integrating weather information into the social studies classes at Ukiah High School and using the high school weather students to assist in field work in the elementary school.

Becoming a weather resource agent in a small district in Athena, Oregon.

Integrating weather and water into the Outdoor School Program in Hermiston.

Establishing an interactive bulletin board in an elementary school in Washington to be a year long student project of weather information.

Tutoring the elementary staff of one participants wife in Pendleton, OR.

Using weather data as a medium in math to graph, predict and model.

Better integrate the online weather information into an oceanography course at Pilot Butte Middle School, Bend, OR

Bookmark the weather information sites on the school's computer network and link key ones to the district web site.

Develop a full time weather station in Ainsworth elementary school in Portland, OR to be available for forecasting for local weather interests and microscale forecast for road conditions in the west hills of Portland, OR.

Provide authentic models of concepts in Pendleton High School's physical science class.

Develop a new module called, "Weather Tracking." to be integrated into the technology curriculum at Sunridge Middle School in Pendleton.

Use weather information in conjunction with FEMA in a secondary social studies issues class in Bend, OR.

To further a participants involvement in weather education by attending the NWS/NOAA summer training in Kansas City, MO.

Restructured the entire freshman curriculum at Redmond High School to focus on Earth Science, and specifically weather and oceanography.

Realignment of the Physic course at Mt. View High school to use weather and oceanography as a data base to explain major concepts.