Correlation of

project WILD

Environmental Education
K-12 Activity Guides

to

CALIFORNIA SCIENCE
CONTENT STANDARDS

GRADES K-3

December 1999

Introduction

The goal of this correlation is to show educators that Project WILD is a valuable, effective tool for teaching Science. This document will help educators identify Project WILD activities that can be used to meet K-12 educational requirements. These activities are consistent with principles of education reform - cooperative learning, real world applications, multi-cultural education, and service learning.

Project WILD, including Aquatic WILD, is an interdisciplinary, **supplementary** conservation and environmental education program that teaches about wildlife and their habitats. "The goal of Project WILD is to assist learners of any age in developing awareness, knowledge, skills and commitment to result in informed decisions, responsible behavior and constructive actions concerning wildlife and the environment upon which all life depends" [WILD, Preface, vi]. Project WILD activities are designed to teach a variety of subjects using environmental concepts, and help students use critical thinking to evaluate material from a variety of sources.

This correlation was researched and developed by Courtney Senna, Barbara Winn and Sylvia Gude, Project WILD staff members. Their efforts were supported by the Department of Fish and Game, sponsor of California Project WILD.

Please share this correlation with other educators in your area. For those interested in learning more about Project WILD, and how to obtain the activity guides, please contact the Project WILD office.

Department of Fish and Game/Project WILD
1416 Ninth Street, 12th Floor
Sacramento, CA 95814
(916) 653-3857 or toll free 1-888-945-3334

KINDERGARTEN

PHYSICAL SCIENCES

1. Properties of materials can be observed, measured and predicted. As a basis for understanding this concept, students know:

   a. objects can be described in terms of the materials they are made of (clay, cloth, paper, etc.) and their physical properties (color, size, shape, weight, texture, flexibility, attraction to magnets, floating and sinking, etc.).

Project WILD Activity Guide	Aquatic WILD Activity Guide
Make a Coat! (82)	

LIFE SCIENCES

2. Different types of plants and animals inhabit the Earth. As a basis for understanding this concept, students know:

   a. how to observe and describe similarities and differences in the appearance and behavior of plants and of animals (e.g., seed-bearing plants, birds, fish, insects).

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	**Water Plant Art (12)**
Color Crazy (12)	**Are You Me? (14)**
Wildlife is Everywhere! (20)	**Fashion a Fish (88)**
Make a Coat! (82)	
What Bear Goes Where? (98)	
Forest in a Jar (108)	
The Thicket Game (112)	
Seeing is Believing (116)	
Surprise Terrarium (118)	

   b. stories sometimes give plants and animals attributes they do not really have.

Project WILD Activity Guide	Aquatic WILD Activity Guide
First Impressions (224)	
Saturday Morning Wildlife Watch (228)	

   c. how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs)

Project WILD Activity Guide	Aquatic WILD Activity Guide
What Bear Goes Where? (98)	**Water Plant Art (12)**

EARTH SCIENCE

3. The Earth is composed of land, air and water. As a basis for understanding this concept, students know:

   b. changes in weather occur from day to day and over seasons, affecting the Earth and its inhabitants.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What Bear Goes Where? (98)	
Forest in a Jar (108)	
Surprise Terrarium (118)	

   c. how to identify resources from the Earth that are used in everyday life, and that many resources can be conserved.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Make A Coat! (82)	**Aqua Words (2)**
Ethi Thinking (290)	**Water We Eating (120)**
Playing Lightly on the Earth (292)	

INVESTIGATION AND EXPERIMENTATION

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content in the other three strands, students should develop their own questions and perform investigations. Students will:

   a. observe common objects using the five senses.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Wildlife is Everywhere (20)	
Learning to Look, Looking to See (62)	
The Thicket Game (112)	
Seeing Is Believing, or the Eyes Have It (116)	
Classroom Carrying Capacity (162)	
Too Close for Comfort (254)*	
activity is a good introduction to this standard	

b. describe the properties of common objects.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Color Crazy (12)	***Aqua Words (2)****
Wildlife is Everywhere! (20)	
Learning to Look, Looking to See (62)	
Surprise Terrarium (118)	***activity is a good introduction to this standard***

c. describe the relative position of objects using one reference (e.g., above or below).

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2) - *extension*	
Wildlife is Everywhere (20)	
Everybody Needs a Home (32)	
Learning to Look, Looking to See (62)	
Classroom Carrying Capacity (126)	
Too Close for Comfort (254)	

d. compare and sort common objects based on one physical attribute (including color, shape, texture, size, weight).

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	**Are You Me? (14)**
Color Crazy (12)	
Everybody Needs a Home (32)	
Make a Coat! (82)	
What Bear Goes Where? (98)	
Surprise Terrarium (118)	

e. communicate observations orally and in drawings.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	**Aqua Words (2)**
Color Crazy (12)	**Water Plant Art (12)**
Wildlife is Everywhere (20)	**Fashion a Fish (88)**
Everybody Needs a Home (32)	**Plastic Jellyfish (170)**
Make a Coat! (82)	
What Bear Goes Where? (98)	
Forest in a Jar (108)	
Surprise Terrarium (118)	
First Impressions (224)	
Ethi Thinking (290)	
Playing Lightly on the Earth (292)	

GRADE 1

LIFE SCIENCES

2. Plants and animals meet their needs in different ways. As a basis for understanding this concept, students know:

   a. different plants and animals inhabit different kinds of environments, and have external features that help them thrive in different kinds of places.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	**Water Plant Art (12)**
Color Crazy (12)	**Are You Me? (14)**
Wildlife is Everywhere (20)	**Wetland Metaphors (54)**
Everybody Needs a Home (32)	**Fashion a Fish (88)**
Learning to Look, Looking to See (62)	
What Bear Goes Where? (98)	
The Thicket Game (112)	
Surprise Terrarium (118)	

   b. plants and animals both need water; animals need food, and plants need light.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Micro Treasure Hunt (22)	
Everybody Needs a Home (32)	
Habitracks (36)*	
What's That, Habitat? (38)*	
Forest In A Jar (108)*	

   can be adapted for Grade 1

   c. animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Wildlife is Everywhere (20)	**Wetland Metaphors (54)**
Everybody Needs a Home (32)	
Good Buddies (104)*	

   can be adapted for Grade 1

INVESTIGATION AND EXPERIMENTATION

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content of the other three strands, students should develop their own questions and perform investigations. Students will:

a. draw pictures that portray some features of the thing being described.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Color Crazy (12)	**Fashion A Fish (88)**
Everybody Needs a Home (32)	
What Bear Goes Where? (98)	

b. record observations and data with pictures, numbers, and/or written statements.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	**Aqua Words (2)**
Color Crazy (12)	**Water Plant Art (12)**
Everybody Needs a Home (32)	**Fashion A Fish (88)**
Make A Coat! (82)	**Aquatic Times (126)**
What Bear Goes Where? (98)	**Plastic Jellyfish (170)**

c. record observations on a bar graph. ***Note: This is easily incorporated into many Project WILD activities***

e. make new observations when discrepancies exist between two descriptions of the same object or phenomena.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	
Wildlife is Everywhere (20)	
What Bear Goes Where? (98)	
First Impressions (224)	
Saturday Morning Wildlife Watch (228)	

GRADE 2

PHYSICAL SCIENCES

1. The motion of objects can be observed and measured. As a basis for understanding this concept, students know:

   a. the position of an object can be described by locating it relative to another object or the background.

Project WILD Activity Guide	Aquatic WILD Activity Guide
The Thicket Game (112)	**Puddle Wonders (22)**

   b. an object's motion can be described by recording the change in its position over time.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Grasshopper Gravity (16)	**Puddle Wonders (22)**

LIFE SCIENCES

2. Plants and animals have predictable life cycles. As a basis for understanding this concept, students know:

   a. organisms reproduce offspring of their own kind. The offspring resemble their parents and each other.

Project WILD Activity Guide	Aquatic WILD Activity Guide
	Are You Me? (14)

   b. the sequential stages of life cycles are different for different animals, for example butterflies, frogs, and mice.

Project WILD Activity Guide	Aquatic WILD Activity Guide
	Are You Me? (14)

   c. many characteristics of an organism are inherited from the parents. Some characteristics are caused by, or influenced by, the environment.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Color Crazy (12)	**Are You Me? (14)**
Grasshopper Gravity (16)	**Fashion A Fish (88)**
What Bear Goes Where? (98)	

   d. there is variation among individuals of one kind within a population.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Grasshopper Gravity (16)	

e. the germination, growth, and development of plants can be affected by light, gravity, touch, or environmental stress.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Forest in a Jar (108)	

INVESTIGATION AND EXPERIMENTATION

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content of the other three strands, students should develop their own questions and perform investigations. Students will:

a. make predictions based on patterns of observation rather than random guessing.

Project WILD Activity Guide	Aquatic WILD Activity Guide
	Puddle Wonders (22) **Deadly Skies (142)**

c. compare and sort common objects based on two or more physical attributes (including color, shape, texture, size, weight).

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild? (2)* **Color Crazy (12)** **What Bear Goes Where? (98)**	**Water Plant Art (12)** **Wetland Metaphors (54)** **Fashion a Fish (88)**

activity can be adapted to meet this standard

d. write or draw descriptions of a sequence of steps, events, and observations.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Grasshopper Gravity (16)	**Aqua Words (2)** **Puddle Wonders! (22)** **Wetland Metaphors (54)** **Fashion a Fish (88)** **Aquatic Times (126)** **Plastic Jellyfish (170)** **Something's Fishy Here! (176)**

e. construct bar graphs to record data using appropriately labeled axes.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Graphananimal (100)	

f. write or draw descriptions of a sequence of steps, events and observations, and include the use of magnifiers or microscopes to extend senses.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Grasshopper Gravity (16)	

g. follow verbal instructions for a scientific investigation.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild? (2)	**Aqua Words (2)**
Grasshopper Gravity (16)	**Puddle Wonders! (22)**
Polar Bears in Phoenix (98)	**Wetland Metaphors (54)**
Graphananimal (100)	**Fashion a Fish (88)**
	Aquatic Times (126)
	Deadly Skies (142)
	Plastic Jellyfish (170)
	Something's Fishy Here! (176)

GRADE 3

PHYSICAL SCIENCES

1. Energy and matter have multiple forms and can be changed from one form to another.

   b. sources of stored energy take many forms: such as food, fuel, and batteries.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's for Dinner (48)	**Marsh Munchers (58)**

   c. machines and living things convert stored energy to motion and heat.

Project WILD Activity Guide	Aquatic WILD Activity Guide
	Marsh Munchers (58)

2. Light has a source and travels in a direction. As a basis for understanding this concept, students know:

   c. the color of light striking an object affects how our eyes see it.

Project WILD Activity Guide	Aquatic WILD Activity Guide
The Thicket Game (112)*	***Micro Odyssey (64)**** ***Fashion A Fish (88)**** ****activity can be modified to meet this standard***

LIFE SCIENCES

3. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept, students know:

   a. plants and animals have structures that serve different functions in growth, survival, and reproduction.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Color Crazy (12) **Grasshopper Gravity (16)** **What Bear Goes Where? (98)** **Forest in a Jar (108)** **Seeing is Believing (116)** **Surprise Terrarium (118)** **Owl Pellets (144)**	**Hooks and Ladders (76)** **Fashion a Fish (88)**

b. examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.

Project WILD Activity Guide	Aquatic WILD Activity Guide
What's Wild (2)	***Wetlands Metaphors (54)****
Color Crazy (12)	**Marsh Munchers (58)**
Grasshopper Gravity (16	
Wildlife is Everywhere (20)	
Habitat Rummy (40)	
Environmental Barometer (80)	
What Bear Goes Where? (98)	
Graphananimal (100)	
Forest in a Jar (108)	***This activity can lead to discussion of diverse life forms in a variety of environments.***
Surprise Terrarium (118)	

c. living things cause changes in the environment where they live; some of these changes are detrimental to the organism or other organisms, whereas others are beneficial.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Wildlife is Everywhere (20)	**Marsh Munchers (58)**
Everybody Needs a Home (32)	**Hooks and Ladders (76)**
Environmental Barometer(80)	**Deadly Skies (142)**
Forest in a Jar (108)	**Deadly Waters (146)**
Ethi-Thinking (290)	**Plastic Jellyfish (170)**
Playing Lightly on the Earth (292)	**Something's Fishy Here! (176)**

d. when the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Environmental Barometer (80)	**Puddle Wonders (22)**
Forest in a Jar (108)	**Deadly Skies (142)**
How Many Bears Can Live in This Forest? (134)	**Deadly Waters (146)**
Too Close For Comfort (254)	**Something's Fishy Here! (176)**

INVESTIGATION AND EXPERIMENTATION

5. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content the other three strands, students should develop their own questions and perform investigations. Students will:

a. repeat observations to improve accuracy, and know that the results of similar scientific investigations seldom turn out exactly the same because of differences in the things being investigated, methods being used, or uncertainty in the observation.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Environmental Barometer (80)	
Graphananimal (100)	
Forest in a Jar (108)	

b. differentiate evidence from opinion, and know that scientists do not rely on claims or conclusions unless they are backed by observations that can be confirmed.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Environmental Barometer (80)	**Aquatic Times (126)**
Graphananimal (100)	***Something's Fishy Here (176)****
	activity can be adapted to meet this standard

c. use numerical data in describing and comparing objects, events and measurements.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Make a Coat! (82)	**Puddle Wonders (22)**
Graphananimal (100)	**Whale of a Tail (26)**
Polar Bears in Phoenix (120)	
How Many Bears Can Live In This Forest? (134)	

d. predict the outcome of a simple investigation, and compare the result to the prediction. NOTE: This is included in the **Extensions** for many Project WILD activities.

e. collect data in an investigation and analyze them to develop a logical conclusion.

Project WILD Activity Guide	Aquatic WILD Activity Guide
Ants on a Twig (10)	**Puddle Wonders (22)**
Owl Pellets (14)	**Deadly Skies (142)**
Grasshopper Gravity (16)	**Something's Fishy Here (176)**
What's For Dinner? (48)	
Polar Bears in Phoenix (120)	
Wildwork (168)	
First Impressions (224)	
Ethi-Thinking (290)	