

# INTRODUCTION TO THE WATSONVILLE WETLANDS

Summer Presentation #1

## Summary

Students are introduced to the location, importance, flora and fauna, and characteristics of the Watsonville Wetlands through an interactive power-point presentation and wetland-inspired games.

## Objectives

Students will:

- name at least two functions of a wetland
- name at least two different plants found in the wetlands
- name at least two different animals found in the wetlands
- locate the Watsonville Wetlands from a map

## California Content Standards Addressed:

Grade Five - *Science 3.e*: "Students know the origin of the water used by their local communities."

Grade Five - *English Language Arts 1.2*: "Use word origins to determine the meaning of unknown words."

Grade Six- *English Language Arts 1.2*: "Identify and interpret figurative language and words with multiple meanings."

## Outline

*There are three pieces to this lesson:*

- 1) Introduction (5 minutes)
- 2) Icebreaker game (10 minutes)
- 3) Power point presentation (75 minutes), including
  - Wetland Importance game
  - Plant and Animal Bingo

## Materials and Handouts

*All handouts referred to in this section can be found in the Summer Program Presentation #1 folder at the WERC. Or, you may print out the .pdf files from the website.*

1. Laptop computer with "Intro to Wetlands.ppt" loaded.

## The Basics:

### Grade Level:

6 - 8

### Subject areas:

life sciences

### Duration

90 minutes (only if the times for each section are strictly adhered to)

### Number of Docents Needed: 2

(with docent training prior to presentation)

### Bibliography/Resources used:

Editor: Michael Agnes. Webster's New World College Dictionary. Fourth Edition. 2002. Wiley Publishing, Inc. Cleveland, Ohio.

2. Projector
3. Extension cords for the laptop and projector for use in a classroom.
4. Icebreaker Game. This includes plant and animal card necklaces, cheat sheets, and tape. The card necklaces and cheat sheets are kept in a folder labeled "Icebreaker" in the first Wetland Stewards activity kit at the WERC. Or, this game can be made by photo copying Wildlife Cards by Patricia McQuade of plants and animals found in local wetlands. Create "cheat sheets" by filling copied sheets with pictures of the plants and animals you have chosen for the game and label each species. Create the necklaces by making duplicates of the cheat sheets but then cut out each picture, hole-punch them, and tie equal lengths of string to the holes so that the cards can be worn as necklaces. Directions for game are found below in text.
5. Box of Wetland Clues (for Wetland Importance game)
6. Box should include a sponge, granola bar, toy bed, toy birdhouse, toy bicycle, and pack of Patricia McQuade wildlife cards. If you wish, decorate the box with a Wetland motif and pictures. Directions for game are found below in text.
7. Plant and Animal Bingo. Includes a set of bingo cards, a deck of prepared wildlife cards, and beans. All these can be found in the Summer Program Classroom Presentation #1 box at the WERC. Or, you can make them by picking out many different wetland and local area plant and animal cards from the Patricia McQuade Wildlife Cards that you want to use for this game. Make several copies of these cards then put the cards together in random order so that you have three cards up and three cards across that creates 8 1/2" X 11" rectangles composed of plant and animal cards. Make sure each bingo sheet is composed of different orders and different varieties of the cards you have picked. Laminate these rectangles. Reserve an un-laminated deck for yourself that includes all of the various plants and animals found in the laminated sheets. Get a baggy full of dried beans. Directions for game are found below in text.
8. Several Laminated vocabulary sheets. These can be found in the Summer Program Classroom Presentation #1 box at the WERC. Or, print and laminate the sheet at the end of this lesson.

*For each student:*

1. pencil

2. Copy of "Intro to the Watsonville Wetlands Worksheet".
3. Copy of "Student Field Trip Contract".

## Procedure

*Collect "Summer Math Program Pre Participation Evaluations" from the teacher. These should have been sent out to each class one to two weeks before the beginning of the summer program.*

### 1) Introduction (5 minutes)

- Introduce yourself and any docents that have come to help.
- Introduce Watsonville Wetlands Watch and the WERC. Ask the kids if anyone has been to the WERC and when? Did anyone know there were wetlands in Watsonville? Who has been to them?
- Introduce summer program. Why are we coming into the classroom? Give them the layout of the program including when they are going on field trips.

### 2) Icebreaker: What wetland plant or animal am I? (10 minutes)

- Students each get an animal or plant card necklace that the docents pass out and put on their backs so that they are unable to see which animal or plant they are. When every student has one, they stand up and mingle around the classroom and ask others "yes or no" questions to figure out which animal or plant they are.
- You may tape animal and plant "cheat sheets" to the whiteboard so that if certain students are having a lot of trouble they can come up to the board and look at all the possibilities of species that they could be. The game should end between 5 or ten minutes.
- You may end the game before everyone has discovered who they are.

### 3) Power-point Presentation: Introduction to the Watsonville Wetlands (75 minutes)

- Vocabulary words: **ecosystem**, **wetland**, **seasonal**, **migration**, and **habitat**. Make several laminated sheets with the definition for each word on them. Pass them out to student tables before the presentation as a cheat sheet.
- Note: the "intro to wetlands student worksheet" accompanies this presentation.

#### **\*\*Teacher's Guide to Powerpoint:\*\***

**Introduction and Today's Agenda (slides 1 and 2)**- be sure to introduce yourself and all docents. *Pass out "Introduction to the Watsonville Wetlands worksheet".*

### **Part One: What are Ecosystems and Habitats? (Slides 3-4) (10 minutes)**

slide 3 – What is an Ecosystem? How can we tell the differences between each of the ecosystems pictured? An ecosystem is different animals, plants, climate (or weather), and landscape interacting in a certain area.

slide 4 – How are Ecosystems and Habitats connected? What is a habitat? Discuss that each animal in the picture is occupying a different habitat within the ecosystem.

### **Part Two: What are wetlands? (Slides 5-8) (10 minutes)**

slide 5 - What is a wetland? Review the definitions. Ask students for other ideas of what a wetland is.

slide 6 – Other Names for Wetlands. Have students say the names aloud and ask if they have heard any of these names before.

slide 7 - Discuss the seasonal variations of a wetland. This slide shows a wetland in summer and winter. Guided questions: Who can define seasonal? What does that mean? When is it rainy here? What happens when it rains - what happens to the wetlands? Do you see much water in this wetland in summer? Do you think wetlands always have to be wet?

slide 8 - Go over the listed wetland facts.

*Wrap-up: Direct students to answer questions 1 through 3 on their worksheet.*

### **Part Three: Where are the Watsonville Wetlands? (slides 9-13) (10 minutes)**

slide 9 - transitional slide

slide 10 – This slide shows all of the sloughs, Watsonville, and the WERC. Ask students if they know what town this is? Where are the wetlands located in relation to the town? Point out the WERC and tell that that this is where they are going on their field trips.

slide 11 – This slide shows Struve Slough and Watsonville Slough close-up, Rolling Hills M.S., and the trail system. Ask if any students have been on the trails? Which sloughs go directly through the town?

*Pause. Direct students to fill out question 4 on their worksheets.*

slide 12 – Aerial photo of Struve Slough looking towards Monterey Bay. Have students identify landmarks that they recognize.

slide 13 – Aerial photo of Stuve Slough looking towards Pajaro Valley High School and DFG Preserve. Explain that this is where they will be going on the field trip.

### **Part Four: The Importance of Wetlands (slides 14 - 20) (20 minutes)**

slide 14 –Transitional Slide. Leave this slide up while you play the Wetland Importance Game.

Ask a few students why they think wetlands are important. Then tell students - I've got a box here filled with clues. Each item in this box is a clue about how wetlands are important to us. You'll get to take turns drawing a clue from the box, then take a guess as to what the clue means. (Choose and discuss one clue at a time. Hold the box up to each student or to student volunteers, depending on the size of the group, and instruct them to choose one item. They don't need to look into the box or spend a lot of time deciding. )

The items in the box are:

- a kitchen sponge (sponge)
- a granola bar (source of food)
- a little birdhouse (home for birds and animals)
- a little bed (migration stop)
- a deck of wetland cards (variety of life)
- a little bicycle (fun and learning)

Allow 2-3 minutes for discussion about each item.

Once every item has been chosen and discussed, direct students back to the power point for a review - slides 15 - 20.

slide 15 - review wetlands as a sponge

slide 16 -review wetlands as a source of food

slide 17 -review wetlands as a home

slide 18 -review wetlands as a migration stop

slide 19 -review wetlands as place for a variety of plants and animals

slide 20 - review wetlands as place for fun and learning.

*Wrap-up: Direct students to answer question 5 on their worksheets*

#### **Part Five: Wetland Biodiversity Slides 21-22 (20 minutes)**

slide 21 – Variety of life in the wetlands! Explain that the wetlands have a lot of different plants and animals. Describe and name each animal on slide.

slide 22 – More Animals. Describe and name each animal on slide.

*Pause. Direct students to answer questions 6 through 8 on their worksheets.*

Then ask students if they're ready for a game - they'll get to learn about some of the diverse plants and animals that live in the wetlands with Plant and Animal Bingo.

Each student gets a Bingo sheet of different plants and animals. Set a pile of beans at each student table. Explain that you will draw a card from your stack of animal and plant cards, read the name aloud and one fact about that species, and students put a bean on the picture of that plant or animal if it is on their Bingo sheet. The first student to get three beans in a row either diagonal, down, or across is the winner. But they must shout out BINGO!

Play 2-3 rounds. Be sure to shuffle cards between rounds.

Prize: a wetland card from the P. McQuade Wildlife card decks.

**Part Six: Field Trip Preparation Slides 23- 27 (5 minutes)**

slide 23 - transitional slide

slide 24 – Review of activities for their first field trip.

slide 25 – Discuss the possibility of ticks. Tell them they are unlikely to get them if they where long pants and long socks.

slide 26 – Discuss the possibility of getting burned. Tell them to bring sunblock and/or a hat.

slide 27 – Discuss how to respect the wetlands and the plants and animals that live there.

*Wrap-up: Pass out a half sheet of “student field trip contract” to each student. Review, ask them to sign, and collect one from each student.*

# Vocabulary: Good Words to Know

**Ecosystem:** a community of plants and animals interconnected with the local landscape.

**Wetland:** an area of land that is wet for all of a year or part of a year with plants that grow well in lots of water

**Seasonal:** of or dependent on a particular season; season can mean Fall, Winter, Spring, or Summer, as well as Wet or Dry.

**Migration:** a group of animals moving from one place to another

**Habitat:** the area where a plant or animal naturally grows or lives