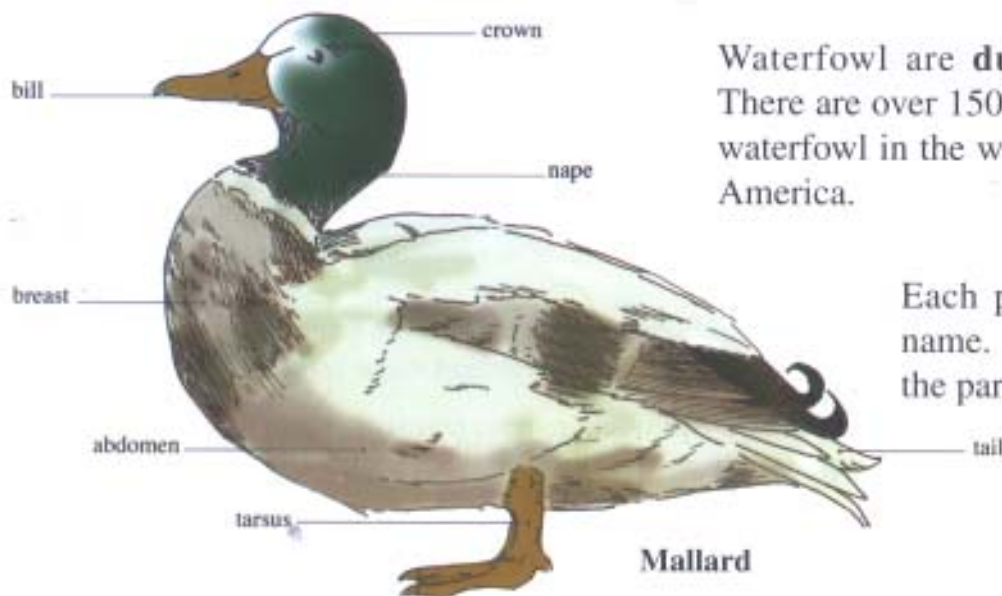


What are Waterfowl?



Waterfowl are **ducks, geese, and swans**. There are over 150 different types (species) of waterfowl in the world, and 45 types in North America.

Each part of the bird has a special name. Look at the diagram to learn the parts of a duck.

Here are three things to look for when trying to identify a bird you think is a type of waterfowl.

Waterfowl:

- have webbed feet for swimming
- live near water



- have flattened bills

side view of bill



top view of bill



KEEP AN EYE OUT FOR WATERFOWL

Circle all the birds that ARE waterfowl



Spotted Sandpiper



Tundra Swan



Great Egret



Osprey



Mallard



Turn this page over and draw your favorite species of waterfowl (duck, goose, or swan). Label your drawing just like the one at the top of this page. For a complete list of North American waterfowl visit www.caljrduckstamp.org.

Answers: Tundra Swan and Mallard

Duck Nests

Some ducks build nests on the ground near wetlands. They use grasses, leaves, and feathers. The nest is shaped like a bowl and contains between 6 and 12 eggs. These ducks nest on the ground:

- Mallard
- Blue-winged Teal



Blue-winged Teal



Ground Nest



Tree Hole or Cavity Nest



Hooded Merganser



Wood Duck

Some ducks nest in tree holes or cavities. They use old woodpecker holes or holes formed when branches fall from trees.

Ducklings that hatch in tree holes climb to the nest entrance when they are one day old and jump, landing safely on the ground below. These ducks nest in tree holes:

- Wood Ducks
- Hooded Mergansers



You can build a wood duck nest box!
Visit www.calwaterfowl.org for nest box plans.

Man-made boxes like this one are used by nesting ducks when natural tree holes are not available.

Drawings by Caidie Brunner and Michelle Johnson

Build a Nest for Schoolyard Birds (For tree swallows or other songbirds)

- Supplies:**
- ½ gallon empty, rinsed milk carton
 - Non-toxic dull green paint
 - 4-inch by 8-inch piece of cardboard
 - Two 3-inch and two 14-inch pieces of wire
- Tools:**
- Scissors or knife
 - Paint brush
 - Tape measure or ruler



Flower pots, coconuts, or tin cans can be fashioned into houses as well.



- Directions:** Fold the cardboard in half to make a roof. Make holes in the cardboard near the fold and in the top seam of the milk carton. Attach the two together using the three-inch pieces of wire (see top of drawing). Cut a 1-1/4 inch entrance hole in the upper front of the carton. Paint the carton and cardboard roof. Make several holes in the carton for ventilation and drainage.

- To Install:** Select a shaded tree or pole and place the house at least four feet above the ground. Make holes on both sides of the carton near the back of the house, about two inches from the top and bottom. Run the 14-inch wire through and attach the house to the tree or pole. The best time to install these houses is March to early April.

Nature Journaling

People who study nature often record their observations when they are outdoors. They take notes, write poetry, and sometimes draw or paint what they see in nature journals. In this activity you will create your own nature journal.

- Materials:
- construction paper
 - blank unlined paper
 - pens, pencils, crayons, paints, or other art supplies
 - stapler and staples or string
 - glue
 - scissors

Making a Nature Journal

Take one piece of construction paper and several sheets of blank paper and make a stack with the construction paper on the outside. Fold the stack in half to create an 8 1/2 x 5 1/2 inch booklet. Staple or tie string along the seam in the construction paper to hold the booklet together. Glue the "My Journal" page to the outside or inside cover.

Using Your Nature Journal


Go outside and sit some place quiet (on your school grounds, in a park, in your backyard, or even in a forest, on a beach, or some other wild place). Take a few minutes to quietly observe what's going on around you. Write down some of your observations. Make a drawing or write a poem. You can also write about how you are feeling, or about what the outdoors means to you.

Journals can even become a log of important information that can be referred to later. By recording what you see and feel outdoors throughout the year you will begin to notice:

- movements of animals from season to season
- changes in the weather
- the signs of each season
- daily/monthly routines of animals and people
- how plants grow
- and much, much more



CUT ALONG THIS LINE



My Nature Journal

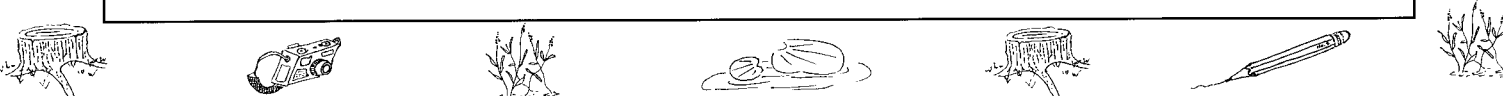
Name: _____

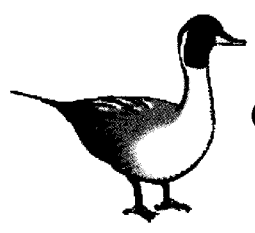
Date: _____

Location: _____

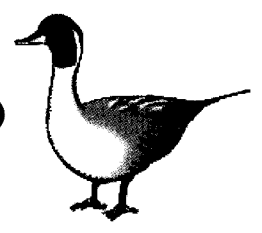
Time: _____

Weather: _____





Probability of Pintails



Many things are possible. **Probability** tells us how likely something is to happen.

Example: You have three marbles in a bag.
2 of your marbles are blue, and 1 is white.
The probability of pulling out a blue marble is 2 out of 3.

Probability can be shown as a **fraction**: The probability of getting a blue marble is 2 out of 3, or $P = 2/3$. What is the probability of getting a white marble?

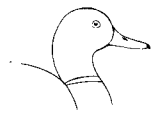
Probability can also be shown as a **percentage**.

Example: You visit a wetland and see 100 ducks.
36 of those ducks are Northern Pintails.
The probability that a duck you're watching is a Northern Pintail is $P = 36/100$ or 36%.



Northern Pintail

On that same wetland you see other types of ducks as well.



Mallard 11



American Wigeon 20



Northern Shoveler 10



Not Identified (unknown) 7



Green-winged Teal 16

What is the probability of seeing each type of duck? The first one is done for you.

- | | | | |
|--------------------|--|--------------------|--|
| Northern Pintail? | $P = 36/100$ or 36% | Green-winged Teal? | $P = \underline{\quad}/\underline{\quad}$ or $\underline{\quad}\%$ |
| American Wigeon? | $P = \underline{\quad}/\underline{\quad}$ or $\underline{\quad}\%$ | Mallard? | $P = \underline{\quad}/\underline{\quad}$ or $\underline{\quad}\%$ |
| Northern Shoveler? | $P = \underline{\quad}/\underline{\quad}$ or $\underline{\quad}\%$ | Not Identified? | $P = \underline{\quad}/\underline{\quad}$ or $\underline{\quad}\%$ |

Now, use your probabilities and a calculator to look for ducks.

At the wetland, 12,000,000 ducks were seen. How many of them are likely to be:

- | | |
|--------------------|--|
| Northern Pintails? | $36/100 \times 12,000,000 = 4,320,000$ |
| American Wigeon? | = |
| Green-winged Teal? | = |
| Mallard? | = |
| Northern Shoveler? | = |
| Not Identified? | = |