Chapter 32 **Mammals** **Name _____**

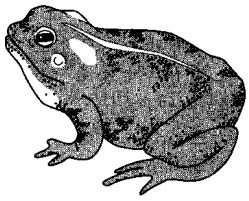
Worksheet Classifying Mammals

Background Information

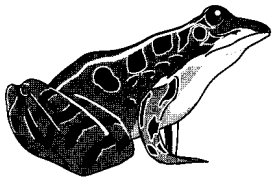
Vertebrates have been evolving since they first appeared more than 500 million years ago. And as they evolved, different vertebrates developed different features and forms. Vertebrates are classified according to these characteristics. In this activity, you will observe groups of organisms in order to recognize relationships among certain organisms.

Procedure

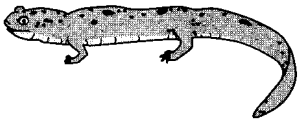
Examine each row of animals pictured below and on the next page. Mark an "X" on the animal that does not belong with the others. Then, on the line provided, give your reason for choosing the one that does not belong.



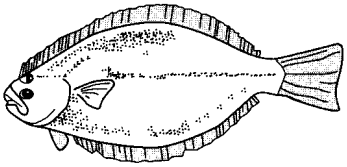
Example



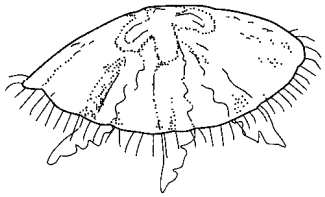
Frog



Salamander

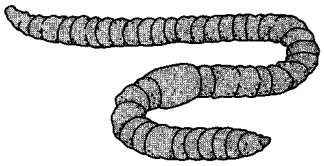


Flounder

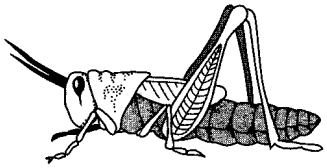


1. Jellyfish

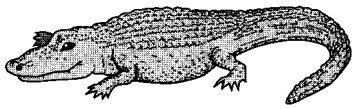
Lizard



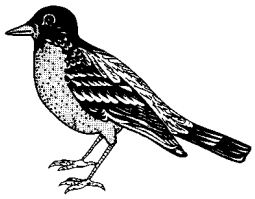
Earthworm



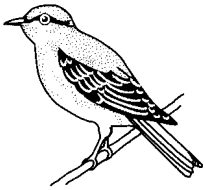
Grasshopper



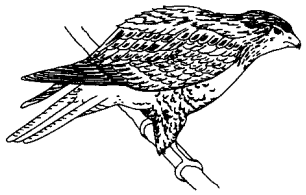
2. Alligator



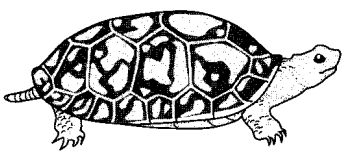
Robin



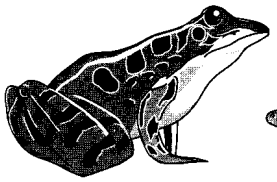
Bluebird



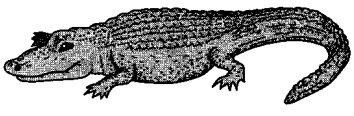
Hawk



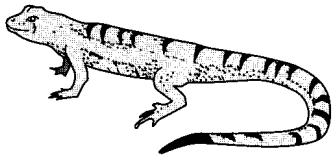
3. Turtle



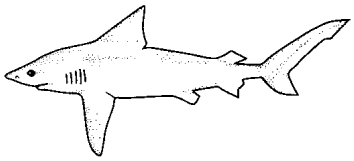
Frog

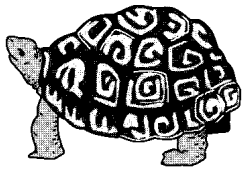


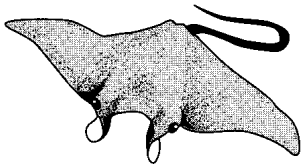
Alligator

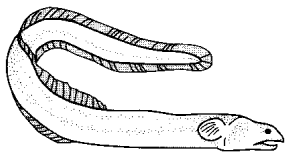


Lizard

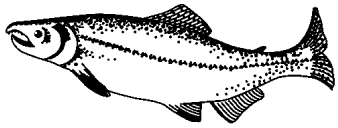


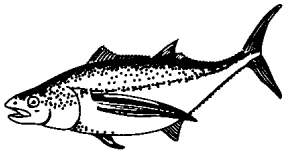


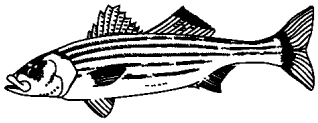




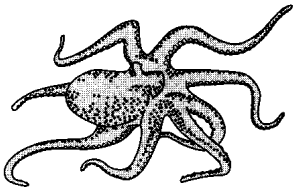
4. Shark Tortoise Ray Eel

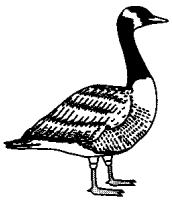


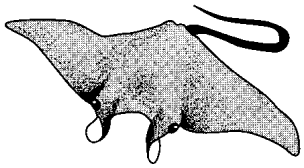


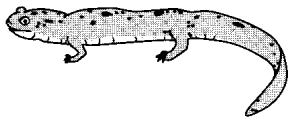


5. Salmon Tuna Walleye Pike Ostrich

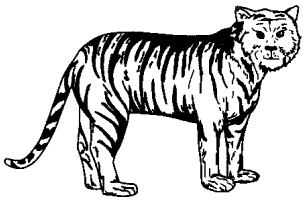


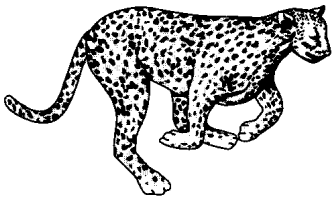


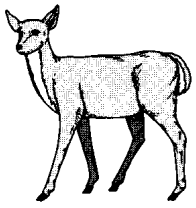


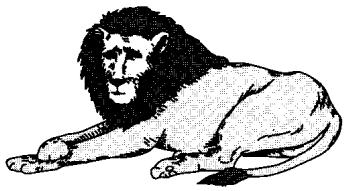


6. Octopus Goose Ray Salamander

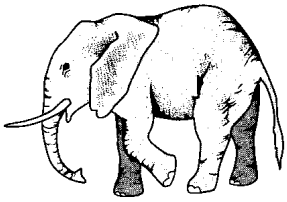


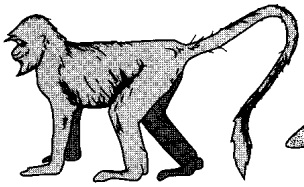


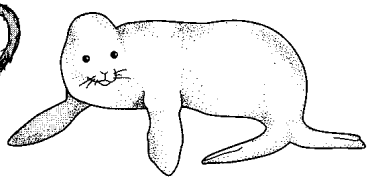


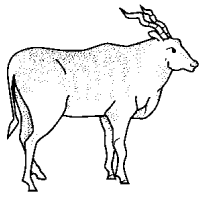


7. Tiger Cheetah Deer Lion

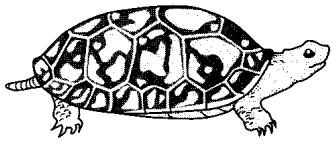


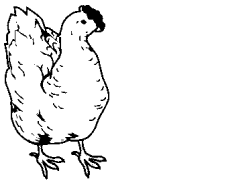


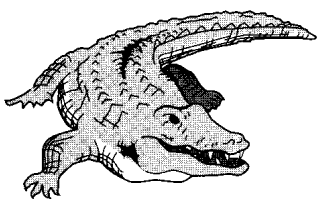




8. Elephant Monkey Seal Antelope







9. Turtle Chicken Tortoise Crocdile

Zoologists and other biologists must make careful observations so that they can accurately classify animals. Why is a bat a mammal and not a bird? To answer this, an observer must realize that even though both bats and birds fly, bats nurse their young and have hair - two important mammalian characteristics. Mammals share certain features with each other and with other animals, but they also differ in many ways.

Procedure

The chart below lists some observations a student has made about some groups of the class *Mammalia*. He has marked each observation "Always," "Never," or "Sometimes." However, one observation about each group is incorrect. Find the box with the incorrect information, and mark it with an "X." Place the correct information in the column labeled "Correction." In the column labeled "Animal," write the name of the animal that would be a representative to this order.

Animal	Mammalian Order	Observations				Correction
1. Kangaroo	Marsupialia	pouched sometimes	hairy always	bony plates never	internal fertilization always	
2. Whale	Cetacea	carnivorous always	hind legs never	water-dwelling always	gills never	
3. Ant Eater	Edentata	bony plates always	clawed toes always	lungs always	water-dwelling never	
4. Rabbit	Lagomorpha	lateral jaw motion always	chisel-like incisors always	lays eggs never	pouched sometimes	
5. Duck-billed Platypus	Monotremata	teeth never	external fertilization never	nurses young sometimes	quills sometimes	
6. Lion	Carnivora	nurse young always	internal development always	toothless sometimes	hairy always	
7. Horse	Perissodactyla	hoofs sometimes	four-chambered heart always	lays eggs never	warm-blooded always	
8. Elephant	Proboscidea	pouched never	trunks sometimes	nurses young always	internal fertilization always	
9. Manatee	Sirenia	water-dwelling always	carnivorous always	lays eggs never	nurses young always	
10. Shrew	Insectivora	backbone always	hoofs never	pouched sometimes	four-chambered heart always	
11. Seal	Pinnipedia	gills sometimes	lays eggs never	carnivorous always	warm-blooded always	

This chart illustrates the relationships of mammals among themselves, and to animals in other orders, classes, phyla, and kingdoms. Complete the chart by filling in all the blanks.