



## ANSWER KEY

### Exercise: 1

**Instructions:** Mammals are an important part of the wildlife of Idaho and they play many different roles in Idaho's many habitats. This exercise will make you much more familiar with this interesting class of animals. Use your knowledge to answer the following questions completely and accurately.

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1. What are the main characteristics that distinguish mammals from other animals?

Major characteristics of mammals include the following: Fur, mammary glands, endothermic, non-nucleated mature red blood cells, and birth to live young.

2. What kinds of habitats can mammals live in?

Mammals can live in many different kinds of habitats; different kinds of mammals are adapted to occupy different habitats. Mammals live in every habitat in Idaho. See the species pages to see the habitats used by each.

3. What are the advantages and disadvantages of being endothermic compared to ectothermic? Is one necessarily better than the other?

Endothermic animals can produce their own heat and in doing so are able to live in cold environments where ectothermic animals could not survive. Being endothermic does have a price in that warm blooded animals have to consume a lot more food to generate this body heat. One is not necessarily better than the other one.

4. What kinds of things do mammals eat?

Mammals can eat many kinds of food and generally fall into three basic categories. Carnivores eat other animals, herbivores eat plant material, and omnivores eat both plant and animal material.

5. Name and briefly describe the major orders of mammals found in Idaho and give an example of each.

The order Insectivora consists of moles and shrews and they generally eat insects and small invertebrates. The order Chiroptera contains the only mammals that can fly; this order contains bats. The order Lagomorpha contains pikas, hares, and rabbits these animals are vegetarians. The order Rodentia contains the rodents including mice, squirrels, and chipmunks. The order Carnivora contains the meat eaters including cats, dogs, bears, and weasels. The order Artiodactyla includes some of the hoofed mammals such as mule deer, elk, and moose.

6. What adaptations do mammals have that allow them to live in cold environments?

Mammals have fur that can insulate them from the cold environment. Many species also have a layer of blubber for insulation. Mammals are also warm-blooded so they are able to produce their own heat.