

Classification & Dichotomous Keys

Classification of animals is a way to put them into groups that share the same **traits**. This is an important way to see how animals are related to each other. They are divided using traits or characteristics (like whether or not they have a backbone).

The way we classify animals and plants was created by a scientist named **Linnaeus**. The Linnaeus system classifies plants and animals on seven levels using Latin and Greek words. With the development of genome science, the biological connection between animals is beginning to alter and over time there will be a more accurate classification system. But, for now, scientists accept the classic Linnaeus system which can be shown in the following way.

All living things are classified on the seven levels:

- Domain
- Kingdom
- Phylum
- Class
- Order
- Family
- Genus
- Species





Classification

An example of how this works in an Eastern Chipmunk is:

- Domain: *Eukaryota*
- Kingdom: *Animalia* animal
- Phylum: *Chordata* has a backbone
- Class: *Mammalia* has a backbone, nurses young
- Order: *Rodentia* has a backbone, nurses young, long, sharp front teeth
- Family: *Scuridae* has a backbone, nurses young, long, sharp front teeth, bushy tail
- Genus: *Tamias* has a backbone, nurses young, long, sharp front teeth, bushy tail, climbs trees
- Species: *striatus* has a backbone, nurses young, long, sharp front teeth, bushy tail, climbs trees, stripes

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Yes - wait for number 3
No - you are an insect - wait for number 2

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Yes - you are a butterfly!
No - you are a grasshopper!

3. Do you have gills and scales?
Yes - you are a fish!
No - wait for number 4

4. Do you lay eggs?
Yes - wait for number 5
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Yes - you are a bird!
No - wait for number 6

6. Do you lay eggs in the water?
Yes - wait for number 7

No - wait for number 8



7. Do you live on land but come back to the water to lay your eggs.
Yes - wait for number 9
No - you are a pickerel frog!

8. Do you have a protective shell?
Yes - you are a turtle!
No - you are a snake!

9. Do you have lots of warty bumps and no tail?
Yes - you are a toad!
No - you are a newt (red eft)

10. Are you a carnivore (eat meat)?
Yes - you are a fox
No, wait for 11

11. Are you an omnivore?
Yes - you are a raccoon!
No - you are a herbivore - wait for number 12

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Yes - you are a squirrel!
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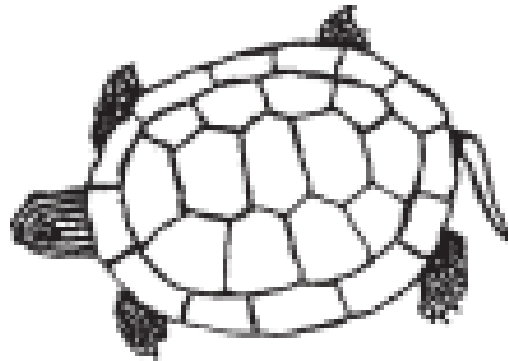
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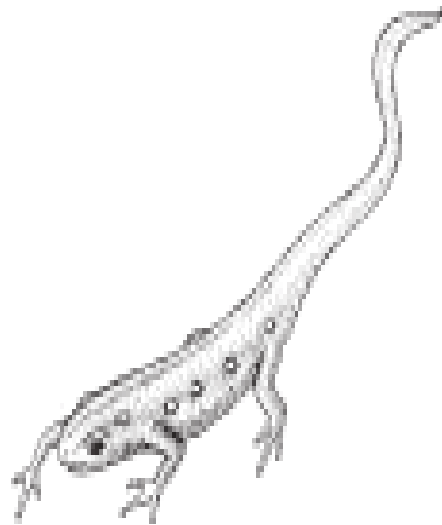
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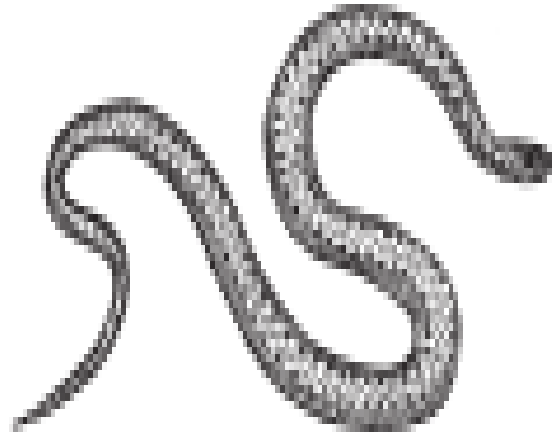
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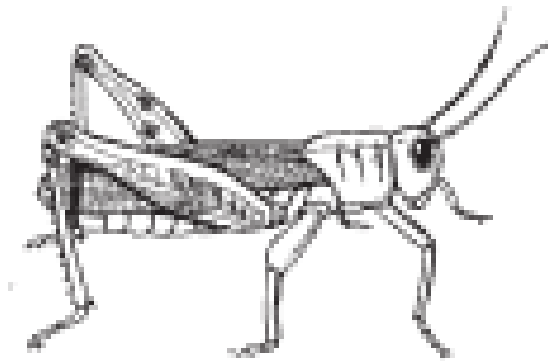
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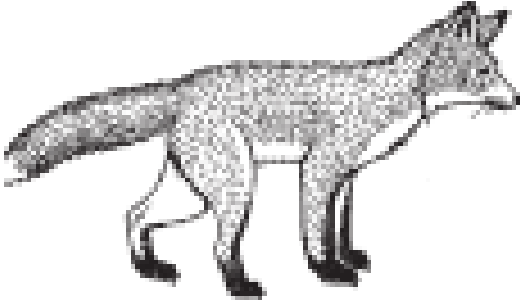
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Classification (Kingdoms & Phyla) – Multiple Choice Test

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Name: _____ Date: _____ Class: _____

- 1** The current classification hierarchy is:
- A** Domain, Kingdom, Phylum, Class Order, Family, Genus, Species.
 - B** Kingdom, Domain, Phylum, Class Order, Family, Genus, Species.
 - C** Species, Kingdom, Phylum, Class Order, Family, Genus.
 - D** Family, Domain, Kingdom, Phylum, Class Order, Genus, Species.
- 2** The Kingdom Protista is made up of:
- A** algae, protozoans and slime-molds.
 - B** mushrooms, yeasts and molds.
 - C** grasses, ferns and mosses.
 - D** bacteria.
 - E** none of the above.
- 3** The Kingdom Fungi is made up of important:
- A** producers.
 - B** carnivores.
 - C** herbivores.
 - D** detritivores.
- 4** The following is one way that the Kingdom Fungi is NOT helpful to people:
- A** as a source for athlete's foot.
 - B** as a source for penicillin.
 - C** as a source for fermentation.
 - D** as a source for bread rising.

- 5** The Plant Kingdom includes all the following, EXCEPT:
- A** trees.
 - B** mushrooms.
 - C** grass.
 - D** moss.
- 6** The Phylum Porifera includes with animals:
- A** porcupines
 - B** sponges
 - C** porpoises
 - D** flatworms
 - E** All of the above
- 7** Which animal is in the Phylum Chordata?
- A** Wolf
 - B** Jellyfish
 - C** Butterfly
 - D** Earthworm
 - E** Snail
- 8** Which animal is in the Phylum Arthropoda?
- A** Wolf
 - B** Jellyfish
 - C** Butterfly
 - D** Earthworm
 - E** Snail