

Pathfinder Name: \_\_\_\_\_



## Amphibians

### 1. What are the characteristics of amphibians?

- a. Amphibians have a backbone, so they are \_\_\_\_\_.
- b. Amphibious means to be able to live both on \_\_\_\_\_ and in \_\_\_\_\_.
- c. Reptiles and amphibians, fish are \_\_\_\_\_, ectothermic — meaning they get their body temperature from their surroundings.
- d. Amphibians can breathe through their \_\_\_\_\_, making them very sensitive to anything they come in contact with, including human hands. Best to not touch them or rinse and wet your hands first. They have moist, scaleless skin that absorbs water and oxygen, but that also makes them vulnerable to dehydration (loss of bodily fluids). Therefore, amphibians are most often found near ponds, marshlands, swamps, and other areas where freshwater is available.

### 2. Name the two main orders of Amphibia and tell how to distinguish between them.

- a. Order \_\_\_\_\_ has frogs and toads. Order \_\_\_\_\_ has newts and salamanders.

### 3. Distinguish between toads and frogs.

- a. \_\_\_\_\_ generally, are aquatic leaping amphibians that have slender bodies with smooth moist skin and strong long hind legs with webbed feet.
- b. \_\_\_\_\_ generally, are leaping amphibians that are terrestrial in adult life with dry, warty skin.

### 4. How do amphibians protect themselves?

- a. \_\_\_\_\_ allows them to hide and be almost invisible and \_\_\_\_\_ in the skin that is toxic to predators.
- b. Having large numbers of \_\_\_\_\_.
- c. \_\_\_\_\_ when attacked to scare off attackers.
- d. Salamanders can drop off a tail and can even \_\_\_\_\_ lost limbs.

### 5. Explain the economic value of amphibians.

- a. Amphibians are \_\_\_\_\_ eaters, so they are very valuable for controlling mosquito populations.
- b. Amphibians are closely monitored by ecologists, because they are among the first animals affected by environmental problems such as pollution and the destruction of the ozone layer.
- c. Amphibians are valuable for medical research. They are raised and sold to research institutions.
- d. Amphibians are also the preferred dinner for several mammal, bird, fish, and reptile species.
- e. The larvae of newts and salamanders are sold as fish bait.

**6. The life cycle of Frogs:**

- a. Many frogs start their life in the water as a fertilized \_\_\_\_\_.
- b. Once they hatch they are called a \_\_\_\_\_ which breathes through gills and swims like a fish.
- c. Next the frog undergoes \_\_\_\_\_ in which its body makes a sudden transition.
- d. The \_\_\_\_\_ frog can survive on land and full breathes air through lungs.

**7. Where do toads spend the winter or the dry season?**

- a. Toads usually burrow below the frost line or into the mud and \_\_\_\_\_ for the winter.

**8. How do frogs and toads sing? What makes the noise so loud?**

- a. Frogs call by passing air through their throat, called \_\_\_\_\_. The sound is often amplified by one or more vocal sacs, membranes of skin under the throat or on the corner of the mouth that bulge out during the amplification of the call. The body of a guitar does much the same thing, having a large hollow section that causes the sound to resonate inside before escaping to the outside atmosphere.

**9. Make a list of amphibians that should be found in your locality.**

Name	Description	Location
1.		
2.		
3.		
4.		
5.		

**10. Identify two species of frogs by their sound or imitate the sounds of two different species of frogs.**

- a. Spring Peeper
- b. American Bullfrog

**11. Do one of the following:**

- a. Observe an amphibian to find out: where and when it sleeps, when it leaves its home for food, how fast it can travel, how far it can jump, and as many other interesting things as you can find out about it
- b. Hatch some amphibian eggs and watch them through their growth cycle and write an essay about it.

**Answers:** 1: Vertebrates, Land, Water, Cold-blooded, Skin. 2: Anura, Caudata. 3: Frogs, Toads. 4: Camouflage, Poison, Offspring, Noisy Squawks, Regenerate. 5: Insect. 6. Eggs, Tadpole, Metamorphosis, Adult. 7: Hibernates. 8. Larynx.