

Convergent: Ecological pressures cause a similarity in structure or function, but **not** from a common ancestor.

Divergent: Evolution arising out of differences in organism which had a **common ancestor**.

Coevolution: Evolution in which one organism causes another to change since they live in close association..

## TYPES OF EVOLUTION WORKSHEET

Directions: Read each description below and write the name of the type of evolution that is being described. Write the word in the appropriate box.

	Description	<i>Convergent evolution</i>	<i>Divergent evolution</i>	<i>Coevolution</i>
1	In the ocean surrounding Antarctica, there are fish that survive the cold water by using a molecule made of glycoproteins that circulates the blood and keeps it from freezing. Certain kinds of worms that live in the Arctic ocean also make antifreeze proteins that help them live in			
2	Ants are the correct size and weight needed to open the flowers for the peony plant. The peony plant provides food for the ant and the ant fertilizes the peony's flowers			
3	Horse evolution shows long stable periods of little evolution interrupted by brief periods of rapid change in which different species emerge.			
4	A kit fox lives in the desert and has large ears with greater surface area that keep the fox from getting overheated. The red fox lives in the forest and has a red coat that keeps it camouflaged.			
5	Hummingbirds have a beak just the right length to reach the nectar in a cardinal flower & as they feed their foreheads bump into the pollen structure. Cardinal flowers are red which hummingbirds can see but bees can't. Cardinal flower's pollen structure is just the right length for the hummingbird to pick up pollen as it feeds.			
6	The <i>Galloti atlantica</i> and <i>Galloti galloti</i> lizards evolved through natural selection from a common ancestor into a wide variety of different looking lizards.			
7	Whales, sharks, and penguins all have streamlined bodies and fins/flippers for moving in water even though they belong in different classes of animals (mammals, fish, and birds).			

		<i>Convergent evolution</i>	<i>Divergent evolution</i>	<i>Coevolution</i>
<b>8</b>	The Galápagos tortoises share a common ancestor, but have necks of different lengths to best reach the food they need in their environment.			
<b>9</b>	This kind of evolution is proven by DNA analysis and results in organisms with different ancestors becoming more alike as they adapt to similar environments.			
<b>10</b>	Adaptive radiation is also known as _____.			
<b>11</b>	Monarch butterfly eats poisonous milkweed to protect itself from predators. In return, the butterfly will transport pollen for the milkweed.			
<b>12</b>	The Galapagos' finches evolved through natural selection from a common ancestor into a wide variety of different looking species.			
<b>13</b>	Ostriches (birds) and giraffes (mammals) are both native to the savannahs of Africa. They share the same characteristic of a very long neck.			
<b>14</b>	The beaver in North America and the capybara in South America share a common ancestor, but have evolved over time to look different.			
<b>15</b>	Ostriches are native to the savannahs of Africa, while penguins live in the polar regions. Although ostriches and penguins are closely-related, they look very different.			
<b>16</b>	Bees don't see red, but do see yellow, blue, and ultra-violet light. Thus, bee-pollinated flowers are mostly yellow or blue with UV nectar guides (landing patterns) to guide the bee. They usually have a small, narrow floral tube to fit the tongue-length of that species of bee.			