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

***Read the following tidbits about 3 different animals in 3 different environments. As you read:***

* ***Circle the animal that is being discussed***
* ***Circle the body part(s) that has changed***
* ***Underline why the body part changed***

The panda’s “thumb” is actually an enlarged bone of the wrist. In the panda’s environment, bamboo is the main food source. It is difficult to handle and break the hard stalks, so an enlarged wrist bone helps to grasp the bamboo. In another environment where the food source is not plants, an extra “finger” would have little benefit. The mutated hands of pandas have been beneficial to them only because of their need for a better grip on bamboo.

The kokapo is a strange flightless parrot that lives in the brush on the mountains of New Zealand. Before man reached its shores, the island was almost mammal-free, with no ground predators of birds. As a result, the many ground dwelling birds lost the ability to fly because there was no need. Their wings are small and useless. When man came, they brought mammals with them, including cats and weasels. The kokapo was easy prey for them, and is now nearly extinct. This happened to several other birds, including the kiwi.

The penguin lives and hunts in the waters of Antarctica and have evolved into flightless birds that are cumbersome and ineffective on land, but are masters of the water. The penguin has gradually lost its ability to fly, attained huge amounts of insulating blubber (fat), and gained mutated legs that are great for swimming and terrible for walking. If the penguin were not in the environment it is so well-suited for, it would be very vulnerable and helpless.