

## **7.11A (Dichotomous Keys) and 7.11C (Natural Selection/Selective Breeding) and 7.12A (Internal Structures) Test Review - KEY**

### **7.11A**

What is a dichotomous key?

A dichotomous key is a tool that allows the user to determine the identity of items in the natural world, such as trees, wildflowers, mammals, reptiles, rocks, and fish.

What does dichotomous mean?

divided into two parts

How many options are there on each part of a dichotomous key?

dichotomous keys always give two choices in each step

How do scientists name organisms?

Binomial classification

What two parts of taxonomy are used to name an organism?

Kingdom and order

**Review your vocabulary and student journal/guide for 7.11A.**

### **7.12A**

What led Charles Darwin to his "fitness" concept?

Only some of the large amount of offspring survived the competition that comes along with environmental conditions, and because they had to adapt.

What did Charles Darwin notice about the traits of individuals in a population? Give an example as well.

They varied from one individual to the next. Ex. Tiger stripe patterns, human hair color, size of an organism

What is natural selection?

Process of selection whereby favorable traits become more common and less favorable traits become less common in following generations.

Which traits are passed from generation to generation because of natural selection?

It occurs when organisms with favorable variations survive, reproduce, and pass their variations to the next generation.

What can natural selection cause?

### Evolution

How did mole rats become blind?

Sight had no advantage in their underground habitat.

How have bacteria become more resistant to penicillin over the years?

The resistant bacteria survive when antibiotics are introduced to them, so they are the ones that reproduce. After many generations, they have reproduced more offspring than non-resistant bacteria.

**Review 7.12A stemsscopes background and Part 1 page**

## **7.11C**

Can an organism change one of its phenotypes or traits through natural selection within its lifetime?

No, phenotypes change from generation to generation because of natural selection.

What is the process of a new species coming about through evolution?

### Speciation

Because the Galapagos Finches all evolved from one common ancestor and became different species specialized for different environments, they would have gone through what?

### Adaptive radiation

What is selective breeding?

A form of artificial selection whereby deliberate breeding results in desired traits in plants or animals.

Give an example of selective breeding.

A farmer only letting the most cows that produce the most milk breed.

What are the steps to selective breeding?

Select parents with the desired traits (things you want)

Cross the parents (breed them)

Select from the offspring

Repeat (over many generations)

**Review your vocabulary for 7.11C.**