

Sections 11.2 and 11.3 Level Guide (pages 222-230)
How Evolution Works and Natural Selection

Level I Directions: Read each statement carefully. Using your textbook, decide if the statement is true or false. In the first blank, identify the statement as true or false. In the second blank, place the page number for where you found the answer. **Correct all statements that are false so that you have true statements to help you study for your test.**

True False	Page	
_____	_____	1. The evidence that Darwin collected during his 5 year trip on the Beagle led him to propose the theory of natural selection.
_____	_____	2. Darwin observed differences in the beaks of finches on the Galapagos Islands.
_____	_____	3. Darwin thought that populations of organisms change quickly as their environments change.
_____	_____	4. Artificial selection occurs when breeders select desired traits to produce changes in organisms in a short period of time.
_____	_____	5. According to natural selection, organisms with favorable adaptations survive and reproduce at a higher rate than organisms with less favorable adaptations.
_____	_____	6. New species can be produced when favorable adaptations accumulate over time.
_____	_____	7. Variations in populations are caused by random mutations in genes and always cause favorable adaptations.
_____	_____	8. Genetic variation is necessary for natural selection because it increases the chances that a population will survive if the environment changes.
_____	_____	9. New species can evolve through the process of isolation, adaptation, and reproduction.
_____	_____	10. When the environment changes and the adaptations of a species no longer help it survive, a species may become extinct.

Level II Directions: Go back to the beginning of the chapter and repeat the process, paying close attention to the pictures, charts, and diagrams. **Follow the same procedure to mark the blanks and remember to connect all false statements.**

True False	Page	
_____	_____	11. Figure 11.8 shows us that the beaks of finches have adapted to allow them to obtain food in different ways.
_____	_____	12. According to Figure 11.9, all finches evolved from a common ancestor.
_____	_____	13. Figure 11.13 shows us that a population of potato beetles can become resistant to pesticides over time.
_____	_____	14. According to the picture on page 229, populations that become isolated slowly evolve adaptations to their new environment, but do not become genetically different.

Level III Directions: Create a flow map showing how a new species evolves.