

Biological Diversity Study Guide

Name: _____
Date: _____

- 1 Be able to define and give examples for the following terms: variations, and biodiversity
- 2 Know what is meant by the term species and describe how to tell if two organisms are members of the same species
- 3 Know what is meant by the term adaptation
- 4 a) Describe what is meant by terms niche and competition
b) Know the differences between broad niche/narrow niche, specialist/generalist
- 5 Define the term symbiosis and be able to describe the three different types of symbiosis including examples
- 6 Know the differences between the two main types of reproduction (sexual, asexual)
- 7 Describe the different types of asexual reproduction and be able to give examples of each type
- 8 Describe the different types of sexual reproduction and be able to give examples of each type
- 9 Be able to identify the different parts of a flower and know the function of each part
- 10 Describe the advantages and disadvantages of sexual and asexual reproduction
- 11 a) Know what is meant by the terms chromosomes and genes
b) Describe the differences between continuous/discrete variation
- 12 Be able to predict the characteristics of an organism based on dominant and recessive traits (using a Punnet Square)

- 13 a) Describe the structure and form of DNA
- b) Know what is meant by the term *genetic code*
- 14 a) Describe the differences between mitosis and meiosis
- b) Identify mitosis and meiosis from diagrams
- 15 a) Describe the process of natural selection
- b) Be able to apply the process of natural selection to real world examples
- 16 a) Describe the process of artificial selection
- b) Be able to apply the process of artificial selection to real world examples
- 17 Define the terms biotechnology, in-vitro fertilization, artificial insemination, genetic engineering and transgenic organism
- 18 Describe examples of genetic engineering and cloning
- 19 Indicate the importance of preserving biodiversity and describe methods of preserving biodiversity
- 20 a) Know the difference between extinction and extirpation
- b) Describe natural and manmade causes of extinction
- c) Know which types of habitats are most vulnerable to extinctions and extirpations
- 21 Explain how chromosomes, genes, alleles, traits and the terms purebred and hybrid are related.