Chapter 17 & 18 Short Test: What to Know
Biology B

Chapter 17:

- Darwin
  - Significance of Galapagos Islands observations
  - Ideas influencing
    - Hutton, Lyell
    - Lamarck
    - Malthus
  - What did Darwin NOT know?
- Evolution
  - Define
- Artificial selection
  - Define
  - Recognize examples
- Natural selection
  - Define
  - Apply definition to examples
- Fitness
  - Define
  - Apply definition
- Theory of Evolution by Natural Selection
  - Begins with what essential observation?
  - What causes a struggle for existence?
  - What is the *cause* of an organism's fitness or lack thereof?
  - What is the origin of species?
  - Common descent
    - Define

See back side →

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Chapter 18:

- Gene pools & allele frequencies
  - Define
- Genetic variation
  - 3 sources
- Mutation
  - Definition
  - Sources
- Single-gene & polygenic traits
  - Definitions
  - Examples of each
  - Characteristic graphs of each
  - How many phenotypes will result from each?
- What does natural selection act upon?
- Natural selection on single-gene traits
  - Results
- Natural selection on polygenic traits
  - 3 types
    - Name
    - Describe results of each type of selection
    - Recognize graphs of each
- Genetic drift
  - Define
  - Type of population most likely to experience it
  - Founder effect
  - Bottleneck effect
- Genetic equilibrium
  - Define
  - 5 conditions that can disrupt it
- Speciation
  - Define
  - Examples
- Reproductive isolation
  - Define
  - Requirement for what?
  - Isolating mechanisms
    - 3 types
      - Define
      - Recognize examples
- Hox genes
  - Function
  - Why embryonic mutations can be important
- Molecular clocks
  - function

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