

STUDY GUIDE – CHAPTERS 1-3 & 51

Multiple Choice Topics (65 points)

- levels of organization
- 3 domains
- 6 kingdoms
- scientific method
- prokaryotic/eukaryotic cells
- properties of life
- quantitative/qualitative data
- periodic table
- orbital diagrams
- isotopes
- covalent bonds
- ionic bonds
- electronegativity
- hydrogen bonds
- polar/non-polar covalent bonds
- structure-function relationship
- partial charges in water molecule
- properties of water
- pH scale
- buffers
- pH effect of CO_2 in H_2O
- positive feedback
- negative feedback
- proximate/ultimate questions
- migration
- pheromones
- animal communication/signals
- classical conditioning
- operant conditioning
- imprinting
- altruistic behavior
- innate/learned behaviors
- polygamous/polyandrous animals
- paternal behavior
- optimal foraging
- courtship behavior - fiddler crabs
- cross-fostering studies
- territorial behavior
- social behavior
- agonistic behavior
- kin selection

Free Response Topics (35 points)

- animal behavior
- innate/learned behavior
- natural selection
- circadian rhythms
- predator/prey relationship
- scientific method

