

# **EXAM EXPECTATIONS**

## **AP Biology**

### **“Unit 5 B-Level”**

**OUTLINE** how biologists explain or view homologous structures  
**OUTLINE** biogeography  
**OUTLINE** the experiments of Griffith, Chargaff, Hershey & Chase, Avery, McCarty & McCleod, Meselson & Stahl, Watson & Crick  
**OUTLINE** transformation in bacteria  
**OUTLINE** the importance of sexual reproduction  
**OUTLINE** the clonal selection theory  
**OUTLINE** antigens  
**OUTLINE** the antiparallel nature of DNA  
**OUTLINE** the structure of DNA  
**OUTLINE** where and how DNA stores information  
**OUTLINE** sexual selection and artificial selection  
**OUTLINE** genetic drift  
**OUTLINE** gene flow  
**OUTLINE** the bottleneck effect and the founder effect  
**OUTLINE** the modern evolutionary synthesis  
**DESCRIBE** Griffith's experiment on transformation  
**DESCRIBE** Hershey and Chase's experiment  
**CALCULATE** the % of a nitrogenous base in DNA when given the % of another  
**IDENTIFY** cells that can produce antibodies from a list of choices  
**IDENTIFY** parts of the immune system as innate or acquired  
**IDENTIFY** examples of asexual reproduction from a list of choices  
**IDENTIFY** parts of female or male human reproductive system from written description  
**IDENTIFY** a given scenario as either a bottleneck or founder effect  
**IDENTIFY** a scenario as one of the following: directional, stabilizing or disruptive selection  
**IDENTIFY** an example as one of the following: disruptive, directional and stabilizing selection  
**IDENTIFY** homologous structures from a list of choices  
**APPLY** genetic look-up table to answer questions  
**COMPARE** Darwinian and Lamarckian evolution  
**COMPARE** disruptive, directional and stabilizing selection  
**COMPARE** DNA and RNA  
**COMPARE** repressible and inducible operons  
**COMPARE** spermatogenesis and oogenesis (differences mainly)  
**COMPARE** prokaryotic and eukaryotic cells  
**COMPARE** intersexual and intrasexual selection