

Chapter One Study Guide  
Introduction to AP (W2025)

1. What is the definition of anatomy? What is the definition of physiology? Why do we study anatomy and physiology together?
2. What is histology?
3. What is the goal of the scientific method? What is the purpose of science?
4. What is the first step in the scientific method? What is a hypothesis? What do you do if your hypothesis is wrong?
5. What is the difference between a scientific fact, hypothesis, law of nature, and a theory? What tells us why something happens? What allows us to make predictions?
6. What are the steps in the hierarchy of complexity? Where do we find the smallest unit of life?
7. What is homeostasis? Draw a picture to illustrate homeostasis.
8. What are the three components of a feedback loop? What is the significance of a stimulus?
9. What two systems regulate the control center (integrator) of the feedback loop? What brain structure for these two systems? What is this structure's nickname?
10. What two type of feedback loops control homeostasis? What happens if homeostasis fails? Give examples of each type of feedback loop? Which one is most dangerous? Explain
11. What is evolution? How may you demonstrate evolution?
12. What is natural selection?
13. What is the difference between classical genetics, modern genetics, and epigenetics?