

Thanksgiving AP Biology Assignment

You need to read the following chapters and take notes in a doodle format. Doodling is just that writing down key ideas or thought that you have as you read. You could (or should) draw pictures to help you understand what is in the material. After you do this you will also need to answer the following essay questions. In answering the questions use your book and do the very best that is possible from students that are at your level. (This is a very high standard).

Chapter to Doodle

- 1 Review themes
- 2, 3, 7, 8, 13, 14 and 15 Medium
- 6, 9, 10 and 12 Lightly
- 4, 5, Heavily
- 11 Very heavily

Answer the following essay questions. Use your textbook and give an outstanding answer.

1. Enzymes are biological catalysts.
 - a. Relate the chemical structure of an enzyme to its specificity and catalytic activity.
 - b. Design a quantitative experiment to investigate the influence of pH OR temperature on the activity of an enzyme.
 - c. Describe what information concerning the structure of an enzyme could be inferred FROM YOUR EXPERIMENT.

2. A laboratory assistant prepared solutions of 0.8 M, 0.6 M, 0.4 M, and 0.2 M sucrose, but forgot to label them. After realizing the error, the assistant randomly labeled the flasks containing these four unknown solutions as flask A, flask B, flask C, and flask D.
 - a. Design an experiment, based on the principles of diffusion and osmosis, that the assistant could use to determine which of the flasks contains each of the four unknown solutions. Include in your answer
 - i. A description of how you would set up and perform the experiment;
 - ii. The results you would expect from your experiment; and
 - iii. An explanation of those results based on the principles involved. (Be sure to clearly state the principles addressed in your discussion.)