
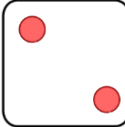
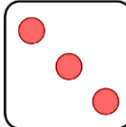


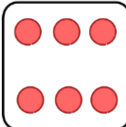


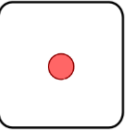
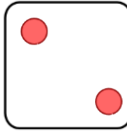

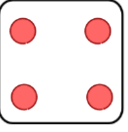

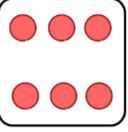
AP Biology Review Think Dots Unit One- Biochemistry and Cellular Structure and Function

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Describe the four levels of protein structure.</p>	 <p>How does water's polarity influence its unique properties? Be detailed.</p>	 <p>Compare and contrast lipids and carbohydrates.</p>
 <p>Differentiate between the structures of RNA and DNA.</p>	 <p>What are the organelles in the endomembrane system? Explain how they work together.</p>	 <p>Describe the structure of the plasma membrane in detail.</p>


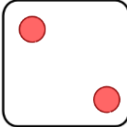
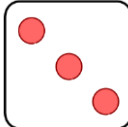


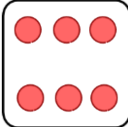
AP Biology Review Think Dots Unit Two- Cellular Energetics

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Explain the factors that can affect enzyme activity.</p>	 <p>Differentiate between the electron transport chains following photosystem II and photosystem I in terms of when they occur and what they produce.</p>	 <p>Explain what steps occur following glycolysis if oxygen is present.</p>
 <p>Explain what is meant by the term proton motive force.</p>	 <p>Describe the steps of a signal transduction pathway.</p>	 <p>Describe the structure of the chloroplast and the mitochondria.</p>

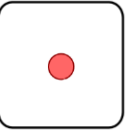
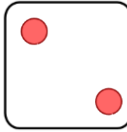

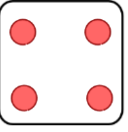

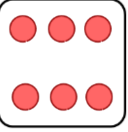
AP Biology Review Think Dots Unit Three- Mendelian Genetics

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Outline and describe the steps of mitosis.</p>	 <p>Compare and contrast mitosis and meiosis.</p>	 <p>Explain the role of cyclin and CDKs in regulation of the cell cycle.</p>
 <p>What are the main differences between production of sperm and eggs.</p>	 <p>If two heterozygotes mate what is the probability that they will have homozygous offspring?</p>	 <p>Outline Mendel's laws.</p>

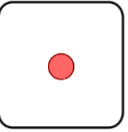
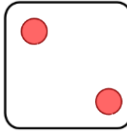

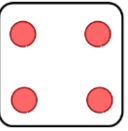

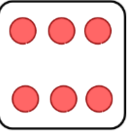
AP Biology Review Think Dots Unit Four- Molecular Genetics

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Transcribe and translate the following DNA sequence.</p> <p>AATTACGGACCGTTACTACC</p>	 <p>Compare and contrast eukaryotic and prokaryotic gene expression. Be detailed.</p>	 <p>Explain the function of an operon and describe how prokaryotic gene regulation functions. Provide an example of an operon.</p>
 <p>Provide three ways in which gene expression is regulated in eukaryotes.</p>	 <p>Outline the steps in DNA replication. When does this process occur?</p>	 <p>Explain how the effects of a mutation can vary based on the location and type of mutation.</p>

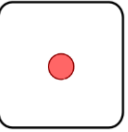
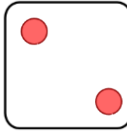
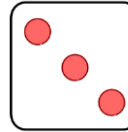
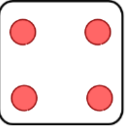

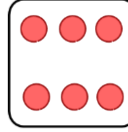
AP Biology Review Think Dots Unit Five- Plant Structure and Function

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Identify the male and female parts of the flower.</p>	 <p>Explain the role of guard cells in transpiration and gas exchange.</p>	 <p>Outline the steps involved in the plant systemic response to infection.</p>
 <p>Provide one example of the role of pheromones in maintaining plant homeostasis. Explain.</p>	 <p>Explain the steps involved in seed germination.</p>	 <p>Provide one example of a type of pollinator or seed dispersal method. Describe what a pollen grain or seed would look like that is dispersed via this method.</p>


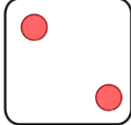

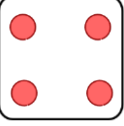


AP Biology Review Think Dots Unit Six- Animal Anatomy and Physiology

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Define negative feedback. Provide an example.</p>	 <p>Outline the steps involved in the activation of the specific immune response.</p>	 <p>Differentiate between the ways in which lipid based hormones and protein based hormones illicit cellular response.</p>
 <p>Explain the role of sodium and potassium pumps in the propagation of nervous impulse.</p>	 <p>Provide an example of how increased surface area allows for the maintenance of homeostasis.</p>	 <p>Differentiate between the signaling mechanisms of hormones, neurotransmitters, and ions.</p>

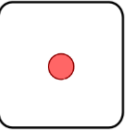
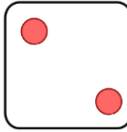
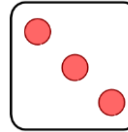
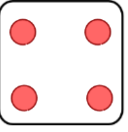

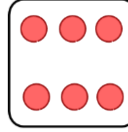
AP Biology Review Think Dots Unit Seven- Evolution

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Explain how mutation may or may not lead to adaptation.</p>	 <p>Calculate the Hardy-Weinberg frequencies for the following data: AA: 351 Aa: 578 aa: 201</p>	 <p>Explain how biodiversity ensures the health of populations.</p>
 <p>Draw the curves for the following and provide an example of each: Directional selection, stabilizing selection, disruptive selection.</p>	 <p>List and describe 3 types of prezygotic barriers to mating.</p>	 <p>Describe 3 types of evidence for evolution.</p>

AP Biology Review Think Dots Unit Eight- Ecology

Roll the di to determine which question to answer. You must answer three questions. You may only re-roll once. When given choices, choose the areas in which you need the most review. Write your answers on a separate sheet of paper. Each person will roll individually, but you may ask your group for assistance.

 <p>Draw a foodweb containing at least 10 organisms.</p>	 <p>Draw a diagram of one of the nutrient cycles (carbon, phosphorous, nitrogen)</p>	 <p>Explain how the clearing of land affects ecosystems GLOBALLY</p>
 <p>Explain, in detail the effects of global climate change on all of the following: biodiversity, ocean health, water quality, and air quality</p>	 <p>Draw AND explain a predator prey graph.</p>	 <p>Explain the difference between primary and secondary succession. Provide an example of a pioneer species and a climax species.</p>