Baran Yesilyurt

Chapter 1

1. What are the properties and processes of life?
Reproducing, evolution, Order, Regulation, Growth and development, Energy Utilization, Response to environment
2. What is the control in an experiment
The Unchanged one
3. What is the variable in an experiment
The one being tested
4. Does a prokaryotic cell have a nucleus?
NO.
5. How do you graph a line
You take the points and graph them

chapter 2

1. What is a [illegible] isotope

2. What is a [illegible]

3. [illegible]

[illegible]

What are [illegible] cohesive

Why [illegible]

1. An isotope which nucleus decays [illegible]

2. An [illegible] between opositly charged [illegible]

3. [illegible] two atoms [illegible] one [illegible] electrons [illegible]

[illegible]

4. What [illegible] hydrogen [illegible]

5. [illegible] hydrogen [illegible]

[illegible]

Brian Shih chapter 3

1. What are the name of the 4 functional groups and what are the bonding they contain?

2. What are the functions of the 3 carbohydrates?

3. How can two different molecules like glucose and fructose be [illegible] but different?

4. What differences determines whether a Lipid is either saturated or unsaturated and what [illegible]

1. Carboxyl; $C(=O)OH$ Carbonyl; $C=O$ Amine group; N Hydroxyl $-OH$

2 Monosaccarides - main fuel source for cellular work
Disaccarides - fuel for monosaccarides
Polysaccarides - Storage for extra energy

3 They are isomers meaning they have the same molecular formula but different structures

4. Wether a lipid is saturated or unsaturated is based on the Hydrogen at the point of double bond.

Saturated = the maximum
Unsaturated = fewer than the

Amin Khan

Chap 1 Quest

1. How is the nucleoid region of a prokaryotic cell different from the nucleus of a eukaryotic cell?
no membrane enclosing the prokaryotic chromosome

2 What is relation between chromosome and Chromatin?
Chromosomes are made of chromatin

3. What polysaccharide is the principal component of plant cell walls?
cellulose

4 Why do phospholipids tend to arrange in a bilayer in an aqueous solution
hydrophilic heads of phospholipids face water exposing heads to water

5. What does the apoptosis appear to do?

Chap 2 Question

1. Ordinary cell division forms progeny cells that are genetically identical
Name 3 functions of this type of cell division?
cell division accounts for the organism's growth, repair, and asexual reproduction

2. Name the phases of mitosis and it function

3. What part of chromosome consists of 2 chromatids?

Baran Yesilyurt

Chapter 5

1. What is the difference between kinetic energy and potential energy
   Kinetic energy is the energy of motion itself.
   Potential energy is energy an object has because location and arrangement
2. What is entropy?
   Randomness or measure of disorder
3. What is an example of chemical energy?
   Fossil Fuel
4. What is diffusion?
   Dispersement of molecules from high to low concentration
5. What is a calorie
   A calorie is the amount of energy in food.
6. How does ATP drive cellular work?
   Each type of work is powered when enzymes tranfer phosphate from ATP to the recipient.
7. Ion location through a membrane is called _____
   Passive Transport
8. What is osmosis?
   The movement of water through a cell without energy
9. Differences between hypertonic and hypotonic and isotonic
   hypertonic is the solution with a higher concentration solute.
   hypotonic is the solution with a lower concentration solute.
   Isotonic are solutions of equal solute concentration.
10. What is Active transport?
    Active transport needs energy to move molecule.

Dan Stith

Chapter 6

1. What is cellular respiration and where does it take place? Is it done by all organisms? What kind of reaction is it?

2. What are the 3 steps of cellular respiration which is the first? Last? which produces the most amount of energy?

3. In Glycolysis what take place in the Energy Investment phase and in the Energy harvest phase? What is the net ATP used?

4. What is inputed into the Citric Acid cycle? What is produced and how?

5. What are transported by the NADH to the inner mitochondrial membrane? As the transported molecules fall what is pushed through the inner membrane? As the pushed through molecule rush down something they produce a massive amount of ATP?

6. What type of respiration is fermentation? From what part of the respiration does it come from? Why can't Fermentation be sustained for a long period of time

7. Name the two different kinds of Fermentation and how they are different from each other?

8. What is a facultative anaerobe, an obligate anaerobe, and an obligate aerobes?

Brian shit

1 Cellular Respiration is a process that takes place in the mitochondria, it is an Aerobic Harvest, that occurs in all eukaryotic organisms. A redox reaction

2. The 3 steps are Glycolysis, Citric Acid Cycle, and Electron transport The Electron transport produces the most energy

3. In the Energy investment phase 2 ATPs are put in to break down glucose. In the Energy harvest phase glycolysis generates ATP directly and create 2 pyruvic acid carries electrons to NAD+ to create NADH

4. Inputed are Acetic acid / ADP (P) / 3 NAD+ / FAD
Outputed are 2 CO_2 / ATP / 3 NADH / $FADH_2$
The Citric Acid Cycle finishes breaking down the sugar energy to produce 2 ATPs. Electron carriers are given an electron and sent to the electron transport chain.

5. Electrons. H+ molecules. H+ rush back down a protein synthase, which releases a massive amount of energy

6. Fermentation = Anaerobic harvest. Glycolysis

Steven

Chapter 7

How does the primary electron acceptor work?

What is photosynthesis?

What do the [illegible] do?

Where in the leaf is water?

What is the balanced equation?

What does the cell [illegible] make?

How global warming effects photosynthesis

Is calvin cycle light dependent or light independent?

What is needed for photosynthesis?

What does photosynthesis create?