What is metabolism?

Metabolism is a set of chemical reactions that cause change.

-enzyme catalyzed

-involved in growth, development, reproduction, maintaining structure and responding to environment.

Also can be defined as a set of defined steps that change an reactant to a final end product

What is anabolism? What is catabolism?

Catabolism=breaking things apart

Ex: breaking down a starch for individual glucose molecules

Anabolism=building things

Ex: synthesizing DNA from nucleotides

Give 5 examples of potential energy

1. Ball on a hill

2. Person on a diving board

3. energy in bonds

4. excitation of an electron to a higher energy level.

5. gasoline in a car

Give 5 examples of kinetic energy

1. Ball rolling down a hill

2. Person diving from diving board

3. Breaking of bonds

4. Electron falling to a lower energy level

5. Combustion of gasoline in car

What is ATP? What is it used in? How does it provide energy?

ATP=adenosine triphosphate. Provides energy to cell. Does so by breaking phosphodiester bonds (bonds between the phosphates)

What is a redox reaction? What is an oxidation reaction?

Redox= gaining electrons Zn2+ + 2e- 🡪 Zn0

Oxidation=losing electrons Cu0🡪 Cu2+ + 2e-