

# Metabolism and energy

1. The conversion of glucose to carbon dioxide and water is an example of:
  - an anabolic reaction
  - a condensation reaction
  - an esterification reaction
  - a catabolic reaction
2. Which of the following is not a feature of collision theory?
  - the rate of chemical reactions increases with increasing temperatures
  - the reaction is faster in dilute solute solutions than in concentrated
  - at high temperatures molecules have more energy than at low temperatures
  - the more molecules present, the faster the reaction
3. Catalysts:
  - slow down chemical reactions
  - provide an alternative reaction pathway
  - are used up in reactions
  - increase the activation energy
4. In an endergonic reaction:
  - energy is absorbed from the surroundings
  - bonds being formed are the same strength as bonds being broken
  - energy is released to the surroundings
  - bonds being formed are stronger than bonds being broken
5. In an exergonic reaction:
  - bonds being formed are the same strength as bonds being broken
  - energy is released to the surroundings
  - bonds being formed are stronger than bonds being broken
  - energy is absorbed from the surroundings
6. Examples of anabolic reactions include:
  - the breakdown of carbohydrates
  - hydrolysis reactions
  - the breakdown of lipids
  - the build up of proteins