

# 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