



# CHEMICAL REACTIVITY

CHEMISTRY

LEVEL 2

## Study Checklist

If you've picked up this checklist, congrats! You've begun the first step in a system of resources designed to help you through the Chemical Reactivity external. To make the most of this, we suggest you sit down, grab a pen, and mark any points that you're feeling a little unsure of. Then, create a subject audit using our template, or refer to the page numbers to find the section in our walkthrough guide to help you out!

### REACTION RATE

- I can describe and explain collision theory [5]
- I can describe and explain the effects that changing temperature has on reaction rate [11]
- I can describe and explain the term activation energy [6]
- I can describe and explain the effect that adding a catalyst has on reaction rate [14]
- I can describe and explain the effect that changing concentration has on reaction rate [7]
- I can describe and explain the effect that changing surface area has on reaction rate [9]

### EQUILIBRIUM

- I can describe what a two way reaction is [15]
- I can describe and explain the effects that changing pressure has on an equilibrium system [25]
- I can describe and explain what the term equilibrium means [17]
- I can describe and explain the effects that changing temperature has on an equilibrium system [28]
- I can construct an equilibrium constant ( $K_c$ ) expression for a given reaction [18]
- I can describe and explain the effects that adding a catalyst has on an equilibrium system [30]
- I can explain the meaning of the value of  $K_c$  for a given reaction [20]
- I can state Le Chatelier's Principle [23]
- I can describe and explain the effects that changing concentrations has on an equilibrium system [23]

## ACIDS AND BASES

- I can define what an acid is
- I can define what a base is
- I can identify conjugate acid base pairs in a given acid-base reaction
- I can define the term strong acid/base
- I can define the term weak acid/base
- I can describe, explain and state the value of  $K_w$
- [31]  I can calculate pH of a strong acid solution [42]
- [33]  I can calculate the pH of a strong base solution [43]
- [34]  I can describe and explain what makes a solution conductive and predict whether a solution will be conductive or not [45]
- [35]  I can compare and contrast the pH of a strong acid, weak acid, strong base and a weak base. [46]
- [40]

