** A level Year 1 Core Concepts** Eduqas

Biological reactions are regulated by enzymes

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|  |  | R | A | G |
| 1 | metabolism as a series of enzyme- controlled reaction |  |  |  |
| 2 | the protein nature of enzymes |  |  |  |
| 3 | enzymes acting intracellularly or extracellularly |  |  |  |
| 4 | active sites, interpreted in terms of three-dimensional structure |  |  |  |
| 5 | the theory of induced fit as illustrated by lysozyme |  |  |  |
| 6 | the meaning of catalysis; the lowering of the activation energy |  |  |  |
| 7 | the influence of temperature, pH, substrate and enzyme concentration on rate of activity and inactivation and denaturation of enzymes and the importance of buffers for maintaining a constant pH |  |  |  |
| 8 | the principles of competitive and non-competitive inhibition |  |  |  |
| 9 | the importance of immobilised enzymes and that industrial processes use immobilised enzymes, allowing enzyme reuse and improving stability |  |  |  |

**SPECIFIED PRACTICAL WORK**

· Investigation into the effect of temperature or pH on enzyme activity

· Investigation into the effect of enzyme or substrate concentration on enzyme activity