## Contents. Physics and Chemistry 4.° ESO

APPENDIX. Mathematical tools			
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5 Matter and its properties	<ol> <li>What is matter?</li> <li>The behaviour of gases</li> <li>The general gas law</li> <li>Classification of material systems</li> <li>Pure substances and solutions</li> </ol>	Revision activities Science practical Separating the components of an alcohol and water solution	
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6 Chemcial reactions	<ol> <li>The reaction mechanism</li> <li>Mass in chemical reactions</li> <li>Writing chemical formulas</li> <li>Reaction stoichiometry</li> <li>Rates of reaction</li> <li>Endothermic and exothermic reactions</li> <li>Types of chemical reactions</li> <li>The chemical industry</li> </ol>	Revision activities Science practical Studying a neutralisation reaction	
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9 Circular motion and universal gravitation	<ol> <li>Uniform circular motion (UCM)</li> <li>Centripetal acceleration</li> <li>Kepler's laws</li> <li>Newton's law of universal gravitation</li> <li>Newtonian synthesis</li> <li>Electric and magnetic forces</li> </ol>	in everyday situations Revision activities Science practical Calculating the acceleration of gravity, g, using a simple pendulum Work on your key competences LS	
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