

**MATHEMATICS – MYP 2 (YEAR 8) , TERM 2**  
**AL JAZEERA ACADEMY**  
**MIDDLE YEARS PROGRAMME, 2009-2010**

TOPICS	OBJECTIVES	AREAS OF INTERACTION	ASSESSMENT CRITERIA
<p><b>Topic 10:</b> Algebra: Expansion and Factorisation. 1 Week</p> <p><b>Unit Question:</b> How do we use expansion and factorising to simplify algebraic expressions?</p> <p><b>Key Questions:</b> How do we:  <ul style="list-style-type: none"> <li>✓ Use the distributive law to expand expressions?</li> <li>✓ Simplify algebraic expressions?</li> <li>✓ Simplify algebraic expressions with negative coefficients?</li> <li>✓ Find a product of binomial expressions?</li> <li>✓ Use algebra to model geometric applications?</li> <li>✓ Factorise algebraic expressions using common factors?</li> <li>✓ Factorise algebraic expressions grouping?</li> </ul> </p>	<p><b>Students should have knowledge of/be able to:</b></p> <p><b>A – Knowledge and Understanding</b></p> <ul style="list-style-type: none"> <li>⇒ Use the distributive law to expand algebraic expressions.</li> <li>⇒ Simplify algebraic expressions by expanding and collecting like terms.</li> <li>⇒ Simplify algebraic expressions with negative coefficients.</li> <li>⇒ Expand and simplify the product of two binomials.</li> <li>⇒ Derive algebraic expressions for simple geometric applications of perimeter and area.</li> <li>⇒ Identify like terms in an algebraic expression.</li> <li>⇒ Factorise algebraic expressions completely using common factors.</li> <li>⇒ Factorise completely by grouping.</li> </ul> <p><b>C - Communication in Mathematics</b></p> <ul style="list-style-type: none"> <li>⇒ Set out calculations in a way which makes sense mathematically.</li> </ul> <p><b>D - Reflection in Mathematics</b></p> <ul style="list-style-type: none"> <li>⇒ Understand the connection between Algebra and real life, and explain the significance of using variables instead of numbers.</li> </ul>	<p><b>Approaches to learning:</b></p> <ul style="list-style-type: none"> <li>• Apply mathematical concepts.</li> <li>• Performing basic operations.</li> <li>• Assess and evaluate own work.</li> </ul> <p><b>Human Ingenuity:</b></p> <ul style="list-style-type: none"> <li>• Connections to Geometry.</li> </ul>	<p><b>A: Knowledge and Understanding (8)</b>  <b>B: Investigating Patterns (8)</b>  <b>C: Communication (6)</b>  <b>D: Reflection and Evaluation (6)</b>  <b>TOTAL: 28</b></p> <p><b>Assessments:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Mental Arithmetic Test. (A)</b></li> <li>▪ <b>Formal Test: Algebraic Expansions and Factorisation. (A, C)</b></li> </ul>