

Univ

University : Telafer

Faculty: College of Basic Education

Department: Mathematic

Stage: third

Subject: Mathematical thinking



Republic of Iraq  
Ministry of Higher Education & Scientific  
Research

## Course Weekly Outline

<b>Name</b>	Sabreen Mahmoud Abbas Mohamed			
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<b>Qualification</b>	Master of Mathematics Science			
<b>Scientific title</b>	assistant teacher			
<b>Work site</b>	Department of Mathematic / College of Basic Education / University of Telafer			
<b>Course objective</b>	<ol style="list-style-type: none"><li>1. The meaning of thinking (definition - in the Quranic verses - the philosophical approach - the introduction to psychology).</li><li>2. Levels of thinking (teaching how to teach, cognitive controls, thinking related to cognitive content, reflective thinking).</li><li>3. Types of thinking (critical, inductive, reflective, mathematical, cognitive, logical, deductive, scientific).</li><li>4. Mathematical thinking (meaning - definition).</li><li>5. The objectives of mathematical thinking in the basic stage.</li><li>6. Domains of mathematical thinking (induction, deduction, expression and symbols, relational, logic, formality, investigation, proof, problem solving).</li><li>7. Definition of methods for developing mathematical thinking.</li><li>8. Develop children's thinking</li><li>9. Mathematical thinking development programs.</li></ol>			
<b>Course description</b>	<p>The concept of thinking is any process or activity that occurs inside the human mind. Thinking occurs for several purposes, including:</p> <ol style="list-style-type: none"><li>1. Understanding and assimilation.</li><li>2. Decision making.</li><li>3. Planning or solving problems Judging things.</li><li>4. Judging things.</li><li>5. Feeling of joy and enjoyment</li><li>6. Imagination.</li><li>7. Indulging in daydreaming.</li></ol>			
<b>Learning resources</b>	<ol style="list-style-type: none"><li>1. العبيسي، محمد مصطفى (2009): الالعب والتفكير في الرياضيات، دار المسيره، عمان.</li><li>2. الكبيسي، عبد الواحد حميد ومدركه صالح عبدالله (2018): خرائط التفكير والعقل في تدريس الرياضيات، مكتبة المجتمع العربي ، عمان.</li></ol>			
<b>Ratings (Division of grades)</b>	<b>First assessment</b>	<b>Second assessment</b>	<b>Annual quest</b>	<b>Final assessment</b>
	25 %	25 %	50 %	50 %

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Week	Date	Article theoretical and practical
First		The meaning of thinking (definition - in the Quranic verses - the philosophical approach - the introduction to psychology).
Second		Levels of thinking (teaching how to teach, cognitive controls, thinking related to cognitive content, reflective thinking).
Third		Types of thinking (critical, inductive, reflective, mathematical, cognitive, logical, deductive, scientific).
Fourth		Mathematical thinking (meaning - definition), and The objectives of mathematical thinking in the basic stage.
Fifth		Domains of mathematical thinking (induction, deduction, expression and symbols, relational, logic, formality, investigation, proof, problem solving).
Sixth		Definition of methods for developing mathematical thinking.
Seventh		Develop children's thinking
Eighth		Mathematical thinking development programs.
nine		Midterm Exam
ten		Final Exam