

MITA International School Syllabus 2019

三田国際学園中学校・高等学校 2019年度 シラバス

Grade Level / Course 学年 / コース	S1 ICA	Subject Area / Class 教科 / 科目	Math A	Class hours 時間数	時間/週
<b>1学期 中間試験 Term 1 Midterm</b>					
Name of Unit, Project 単元名	0-1: Functions Chapter 1: Equations and Inequalities	Textbooks / Materials 使用教科書 / 教材	Glencoe Algebra 2, Worksheets, Khan Academy		
Unit Description 単元の概要	Students will be able to: • Identify the domain and range of functions    • Classify real numbers • Use the properties of equality and inequality to solve equations    • Solve absolute value equations CCSS: A.SSE.1a, A.SSE.1b, A.SSE.2, A.CED.1, A.SSE.1b, A.CED.3				
Unit Standards 本単元の内容と評価規準				Others 備考	
素   好   知	<b>A3</b> Apply knowledge to solve a real-world problem using equations or absolute value equations. Apply mathematical reasoning.	<b>B3</b> Model real-world situations using equations, inequalities, and absolute values.	<b>C3</b> Create an original problem or model using equations that benefits society. Construct viable arguments.		
	<b>A2</b> Use the property of equality to solve equations.	<b>B2</b> Connect mathematical concepts. Classify real numbers. Critique the reasoning of others.	<b>C2</b> Efficiently and strategically deconstruct equations or absolute value equations.		
	<b>A1</b> Identify the problem and given information. Identify the domain and range of functions. Know the meaning of key vocabulary.	<b>B1</b> Break down equations into manageable components. Look for structure. Identify the logical units of a problem and their connections.	<b>C1</b> Use equations or absolute value equations in real world applications.		
	<b>Recognition</b>	<b>Logical Thinking</b>	<b>Creative Thinking</b>		

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<b>1学期 期末試験 Term 1 Final</b>					
Name of Unit, Project 単元名	Chapter 2: Linear Relations and Functions	Textbooks / Materials 使用教科書 / 教材	Glencoe Algebra 2, Worksheets, Khan Academy		
Unit Description 単元の概要	Students will be able to: <ul style="list-style-type: none"> <li>Identify and sketch graphs of parent functions and inequalities, including linear functions and absolute value functions</li> <li>Collect and organize data, make and interpret scatter plots, fit the graph of a function to data to interpret results</li> </ul> CCSS: F.IF.4, F.IF.7b, F.BF.3, A.CED.3				
Unit Standards 本単元の内容と評価規準				Others 備考	
楽	<b>A3</b> Apply knowledge to solve a real-world problem using parent functions and inequalities. Apply mathematical reasoning.	<b>B3</b> Reason mathematically. Model real-world situations using parent functions and inequalities.	<b>C3</b> Create an original problem or model that benefits society using parent functions and inequalities. Construct viable arguments.		
好	<b>A2</b> Use the given information to solve parent functions and inequalities. Make sense of problems and persevere in solving them. Attend to precision.	<b>B2</b> Connect mathematical concepts. Critique the reasoning of others.	<b>C2</b> Efficiently deconstruct parent functions and inequalities. Use tools strategically.		
知	<b>A1</b> Identify parent functions and inequalities and their given information. Know the meaning of key vocabulary of parent functions and inequalities.	<b>B1</b> Break down a problem into manageable components. Look for structure. Identify the logical units of parent functions and inequalities and their connections.	<b>C1</b> Reason abstractly and quantitatively. Make use of structure for parent functions and inequalities.		
	<b>Recognition</b>	<b>Logical Thinking</b>	<b>Creative Thinking</b>		

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2学期 中間試験 Term 2 Midterm

Name of Unit, Project 単元名	Chapter 3: Systems of Equations and Inequalities	Textbooks / Materials 使用教科書 / 教材	Glencoe Algebra 2, Worksheets, Khan Academy
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Unit Description 単元の概要	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Use algebraic methods, graphs, or tables to solve systems of equations or inequalities.</li> <li>• Interpret and determine the reasonableness of solutions to systems of equations for given contexts.</li> </ul> <p>CCSS: A.CED.3</p>
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Unit Standards 本単元の内容と評価規準			Others 備考	
楽	<p><b>A3</b></p> <p>Apply knowledge to solve a real-world problem using systems of equations or inequalities.</p> <p>Apply mathematical reasoning.</p>	<p><b>B3</b></p> <p>Reason mathematically.</p> <p>Model real-world situations using systems of equations or inequalities.</p>	<p><b>C3</b></p> <p>Create an original problem or model that benefits society using systems of equations or inequalities.</p> <p>Construct viable arguments.</p>	
好	<p><b>A2</b></p> <p>Use the given information to solve systems of equations or inequalities.</p> <p>Make sense of problems and persevere in solving them.</p> <p>Attend to precision.</p>	<p><b>B2</b></p> <p>Connect mathematical concepts for systems of equations or inequalities.</p> <p>Critique the reasoning of others.</p>	<p><b>C2</b></p> <p>Efficiently deconstruct problems about systems of equations or inequalities. Use tools strategically.</p>	
知	<p><b>A1</b></p> <p>Identify the problem and given information. Know the meaning of key vocabulary for systems of equations or inequalities.</p>	<p><b>B1</b></p> <p>Break down a problem into manageable components.</p> <p>Look for structure.</p> <p>Identify the logical units of systems of equations or inequalities.</p>	<p><b>C1</b></p> <p>Reason abstractly and quantitatively.</p> <p>Make use of structure of systems of equations or inequalities.</p>	
	<b>Recognition</b>	<b>Logical Thinking</b>	<b>Creative Thinking</b>	

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<b>2学期 期末試験 Term 2 Final</b>					
Name of Unit, Project 単元名	Chapter 10: Sequences and Series	Textbooks / Materials 使用教科書 / 教材	Glencoe Algebra 2, Worksheets, Khan Academy		
Unit Description 単元の概要	Students will be able to: <ul style="list-style-type: none"> <li>• Relate arithmetic sequences to linear functions and relate geometric sequences to exponential functions.</li> <li>• Use Pascal's triangle and the Binomial Theorem to expand powers of binomials.</li> <li>• Use mathematical induction to prove statements.</li> </ul> CCSS: A.APR.5, A.SSE.1b				
Unit Standards 本単元の内容と評価規準				Others 備考	
楽	<b>A3</b> Apply knowledge of Sequences and Series to solve a real-world problem. Apply mathematical reasoning.	<b>B3</b> Reason mathematically. Model real-world situations using Sequences and Series.	<b>C3</b> Create an original problem or model that benefits society using Sequences and Series. Construct viable arguments.		
好	<b>A2</b> Use the given information to solve a problem with Sequences and Series. Make sense of problems and persevere in solving them. Attend to precision.	<b>B2</b> Connect mathematical concepts of Sequences and Series. Critique the reasoning of others.	<b>C2</b> Efficiently deconstruct problems. Use tools strategically for Sequences and Series.		
知	<b>A1</b> Identify the problem and given information. Know the meaning of key vocabulary of Sequences and Series.	<b>B1</b> Break down a problem into manageable components. Look for structure. Identify the logical units of a problem using Sequences and Series and their connections.	<b>C1</b> Reason abstractly and quantitatively. Make use of structure of Sequences and Series.		
	<b>Recognition</b>	<b>Logical Thinking</b>	<b>Creative Thinking</b>		

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3学期 期末試験 Term 3 Final

Name of Unit, Project 単元名	0-9: Center, Spread and Position Chapter 11: Statistics and Probability	Textbooks / Materials 使用教科書 / 教材	Glencoe Algebra 2, Worksheets, Khan Academy
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Unit Description 単元の概要	Students will be able to: <ul style="list-style-type: none"> <li>• Use combinations and permutations to find probability and use them to solve problems.</li> <li>• Find probabilities of independent and dependent events, and of mutually exclusive and inclusive events</li> </ul> CCSS: S.IC.1, S.IC.3, S.IC.4, S.IC.5, S.IC.6, S.SMD.6, S.SMD.7, S.ID.4
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Unit Standards 本単元の内容と評価規準			Others 備考
察	<b>A3</b> Apply knowledge to solve a real-world problem using statistics and probability. Apply mathematical reasoning.	<b>B3</b> Reason mathematically. Model real-world situations with statistics and probability.	<b>C3</b> Create an original problem or model that benefits society using statistics and probability. Construct viable arguments.
好	<b>A2</b> Use the given information to solve a problem using statistics and probability. Make sense of data and persevere in solving them. Attend to precision.	<b>B2</b> Connect mathematical concepts for statistics and probability. Critique the reasoning of others.	<b>C2</b> Efficiently deconstruct problems with statistics and probability. Use tools strategically.
知	<b>A1</b> Identify the problem and given information. Know the meaning of key vocabulary for statistics and probability.	<b>B1</b> Break down a problem into manageable components. Look for structure. Identify the logical units of a statistics and probability problem and their connections.	<b>C1</b> Reason abstractly and quantitatively. Make use of structures of statistics and probability.
	<b>Recognition</b>	<b>Logical Thinking</b>	<b>Creative Thinking</b>