

MITA International School Syllabus 2018
三田国際学園中学校 平成30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	3 times per week
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1学期 中間試験 Term 1 Midterm

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
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Unit Description 単元の概要	Students will be able to: • Identify the domain and range of functions • Use the property of equality to solve equations CCSS: A.SSE.1a, A.SSE.1b, A.SSE.2, A.CED.1, A.SSE.1b, A.CED.3		
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Class Standards 評価規準	Learning Objectives 学習内容
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楽	A3 Apply knowledge to solve a real-world problem. Apply mathematical reasoning.	B3 Reason mathematically. Model with mathematics.	C3 Create an original problem or model that benefits society. Construct viable arguments.		A3 Apply knowledge to solve a real-world problem using equations or absolute value equations. Apply mathematical reasoning.	B3 Model equations or absolute value equations with mathematics.	C3 Create an original problem or model using equations that benefits society. Construct viable arguments.
好	A2 Use the given information to solve a problem. Make sense of problems and persevere in solving them. Attend to precision.	B2 Connect mathematical concepts. Critique the reasoning of others.	C2 Efficiently deconstruct problems. Use tools strategically.		A2 Use the property of equality to solve equations.	B2 Connect mathematical concepts. Classify real numbers. Critique the reasoning of others.	C2 Efficiently and strategically deconstruct equations or absolute value equations.
知	A1 Identify the problem and given information. Know the meaning of key vocabulary.	B1 Break down a problem into manageable components. Look for structure. Identify the logical units of a problem and their connections.	C1 Reason abstractly and quantitatively. Make use of structure.		A1 Identify the problem and given information. Identify the domain and range of functions. Know the meaning of key vocabulary.	B1 Break down equations into manageable components. Look for structure. Identify the logical units of a problem and their connections.	C1 Understand how to use equations or absolute value equations in real world applications.
	Recognition	Logical Thinking	Creative Thinking				

Others 備考	<評価方法> <ICT> Students will be given worksheets, quizzes, Khan Academy links and projects to practice key concepts of the unit.
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1学期 期末試験 Term 1 Final

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
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Unit Description 単元の概要	<p>Students will be able to:</p> <ul style="list-style-type: none"> Identify and sketch graphs of parent functions and inequalities, including linear functions and absolute value functions Collect and organize data, make and interpret scatter plots, fit the graph of a function to data to interpret results <p>CCSS: F.IF.4, F.IF.7b, F.BF.3, A.CED.3</p>
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Class Standards 評価規準	Learning Objectives 学習内容
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	A3	B3	C3	A3	B3	C3
楽	A3 Apply knowledge to solve a real-world problem. Apply mathematical reasoning.	B3 Reason mathematically. Model with mathematics.	C3 Create an original problem or model that benefits society. Construct viable arguments.	A3 Apply knowledge to solve a real-world problem using parent functions and inequalities. Apply mathematical reasoning.	B3 Reason mathematically. Model parent functions and inequalities with mathematics.	C3 Create an original problem or model that benefits society using parent functions and inequalities. Construct viable arguments.
好	A2 Use the given information to solve a problem. Make sense of problems and persevere in solving them. Attend to precision.	B2 Connect mathematical concepts. Critique the reasoning of others.	C2 Efficiently deconstruct problems. Use tools strategically.	A2 Use the given information to solve parent functions and inequalities. Make sense of problems and persevere in solving them. Attend to precision.	B2 Connect mathematical concepts. Critique the reasoning of others.	C2 Efficiently deconstruct parent functions and inequalities. Use tools strategically.
知	A1 Identify the problem and given information. Know the meaning of key vocabulary.	B1 Break down a problem into manageable components. Look for structure. Identify the logical units of a problem and their connections.	C1 Reason abstractly and quantitatively. Make use of structure.	A1 Identify parent functions and inequalities and their given information. Know the meaning of key vocabulary of parent functions and inequalities.	B1 Break down a problem into manageable components. Look for structure. Identify the logical units of parent functions and inequalities and their connections.	C1 Reason abstractly and quantitatively. Make use of structure for parent functions and inequalities.
	Recognition	Logical Thinking	Creative Thinking			

Others 備考	<p><評価方法> <ICT> Students will be given worksheets, quizzes, Khan Academy links and projects to practice key concepts of the unit.</p>
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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"> • Use algebraic methods, graphs, or tables to solve systems of equations or inequalities. • Interpret and determine the reasonableness of solutions to systems of equations for given contexts. <p>CCSS: A.CED.3</p>
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Class Standards 評価規準				Learning Objectives 学習内容		
楽	A3 Apply knowledge to solve a real-world problem. Apply mathematical reasoning.	B3 Reason mathematically. Model with mathematics.	C3 Create an original problem or model that benefits society. Construct viable arguments.	A3 Apply knowledge to solve a real-world problem using systems of equations or inequalities. Apply mathematical reasoning.	B3 Reason mathematically. Model systems of equations or inequalities with mathematics.	C3 Create an original problem or model that benefits society using systems of equations or inequalities. Construct viable arguments.
好	A2 Use the given information to solve a problem. Make sense of problems and persevere in solving them. Attend to precision.	B2 Connect mathematical concepts. Critique the reasoning of others.	C2 Efficiently deconstruct problems. Use tools strategically.	A2 Use the given information to solve systems of equations or inequalities. Make sense of problems and persevere in solving them. Attend to precision.	B2 Connect mathematical concepts for systems of equations or inequalities. Critique the reasoning of others.	C2 Efficiently deconstruct problems about systems of equations or inequalities. Use tools strategically.
知	A1 Identify the problem and given information. Know the meaning of key vocabulary.	B1 Break down a problem into manageable components. Look for structure. Identify the logical units of a problem and their connections.	C1 Reason abstractly and quantitatively. Make use of structure.	A1 Identify the problem and given information. Know the meaning of key vocabulary for systems of equations or inequalities.	B1 Break down a problem into manageable components. Look for structure. Identify the logical units of systems of equations or inequalities.	C1 Reason abstractly and quantitatively. Make use of structure of systems of equations or inequalities.
	Recognition	Logical Thinking	Creative Thinking			

Others 備考	<評価方法> <ICT> Students will be given worksheets, quizzes, Khan Academy links and projects to practice key concepts of the unit.
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2 学期 期末試験 Term 2 Final

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
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Unit Description 単元の概要	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Relate arithmetic sequences to linear functions and relate geometric sequences to exponential functions. • Use Pascal's triangle and the Binomial Theorem to expand powers of binomials. • Use mathematical induction to prove statements. <p>CCSS: A.APR.5, A.SSE.1b</p>
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Class Standards 評価規準	Learning Objectives 学習内容																									
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Others 備考	<評価方法> <ICT> Students will be given worksheets, quizzes, Khan Academy links and projects to practice key concepts of the unit.
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3 学期 学年末試験 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"> • Use combinations and permutations to find probability and use them to solve problems. • Find probabilities of independent and dependent events, and of mutually exclusive and inclusive events 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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