

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	J1 Advanced	Subject Area / Class 教科 / 科目	Math	Class hours 時間数	6 times / week 時間 / 週
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1学期 中間試験 Term 1 Midterm

Name of Unit, Project 単元名	<ul style="list-style-type: none"> Positive and Negative Numbers; Algebraic Expressions 	Textbooks / Materials 使用教科書 / 教材	Shin-Chu-Mon for 7 th Grade, Gateway to the Future Math 1 / Worksheets, Khan Academy
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Unit Description 単元の概要	<ul style="list-style-type: none"> Students will understand how to do calculations with positive and negative numbers. Students will learn how to use letters to express quantity. Students will learn how to calculate with algebraic expressions.
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Unit Standards 本単元の内容と評価規準	Others 備考
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察 好 知	A3 <ul style="list-style-type: none"> Apply knowledge to solve a real-world problem. Apply mathematical reasoning. Analyze proportional relationships and use them to solve real-world and mathematical problems. 	B3 <ul style="list-style-type: none"> Reason mathematically. Model with mathematics. Investigate chance processes and develop, use, and evaluate probability models. 	C3 <ul style="list-style-type: none"> Create an original problem or model that benefits society. Construct viable arguments. Investigate chance processes and develop, use, and evaluate probability models. 	<評価方法> <ul style="list-style-type: none"> Classwork and assessment Homework and assessment Chapter Quiz Exam <ICT・Creation> <ul style="list-style-type: none"> Renaissance Adaptive Learning Program Khan Academy Quizlet Google Classroom and Google Apps (Docs, Sheets, Slides)
	A2 <ul style="list-style-type: none"> Use the given information to solve a problem. Make sense of problems and persevere in solving them. Attend to precision. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. 	B2 <ul style="list-style-type: none"> Connect mathematical concepts. Critique the reasoning of others. Draw, construct and describe geometrical figures and describe the relationships between them. 	C2 <ul style="list-style-type: none"> Efficiently deconstruct problems. Use tools strategically. Draw informal comparative inferences about two populations. 	
	A1 <ul style="list-style-type: none"> Identify the problem and given information. Know the meaning of key vocabulary. Use properties of operations to generate equivalent expressions. 	B1 <ul style="list-style-type: none"> Break down a problem into manageable components. Look for structure. Identify the logical units of a problem and their connections Solve real-life and mathematical problems using numerical and algebraic expressions and equations. 	C1 <ul style="list-style-type: none"> Reason abstractly and quantitatively. Make use of structure. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. 	
	Recognition	Logical Thinking	Creative Thinking	

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1学期 期末試験 Term 1 Final

Name of Unit, Project 単元名	Equations	Textbooks / Materials 使用教科書 / 教材	Shin-Chu-Mon for 7 th Grade, Gateway to the Future Math 1 / Worksheets, Khan Academy
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Unit Description 単元の概要	<ul style="list-style-type: none"> Students will learn how to write and solve equations. Students will learn how to solve ratios and make proportional expressions. Students will solve real-world problems using equations.
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Unit Standards 本単元の内容と評価規準			Others 備考
<p>楽 A3</p> <ul style="list-style-type: none"> Apply knowledge to solve a real-world problem. Apply mathematical reasoning. Analyze proportional relationships and use them to solve real-world and mathematical problems. 	<p>B3</p> <ul style="list-style-type: none"> Reason mathematically. Model with mathematics. Investigate chance processes and develop, use, and evaluate probability models. 	<p>C3</p> <ul style="list-style-type: none"> Create an original problem or model that benefits society. Construct viable arguments. Investigate chance processes and develop, use, and evaluate probability models. 	<p><評価方法></p> <ul style="list-style-type: none"> Classwork and assessment Homework and assessment Chapter Quiz Exam <p><ICT・Creation></p> <ul style="list-style-type: none"> Renaissance Adaptive Learning Program Khan Academy Quizlet Google Classroom and Google Apps (Docs, Sheets, Slides)
<p>好 A2</p> <ul style="list-style-type: none"> Use the given information to solve a problem. Make sense of problems and persevere in solving them. Attend to precision. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. 	<p>B2</p> <ul style="list-style-type: none"> Connect mathematical concepts. Critique the reasoning of others. Draw, construct and describe geometrical figures and describe the relationships between them. 	<p>C2</p> <ul style="list-style-type: none"> Efficiently deconstruct problems. Use tools strategically. Draw informal comparative inferences about two populations. 	
<p>知 A1</p> <ul style="list-style-type: none"> Identify the problem and given information. Know the meaning of key vocabulary. Use properties of operations to generate equivalent expressions. 	<p>B1</p> <ul style="list-style-type: none"> Break down a problem into manageable components. Look for structure. Identify the logical units of a problem and their connections Solve real-life and mathematical problems using numerical and algebraic expressions and equations. 	<p>C1</p> <ul style="list-style-type: none"> Reason abstractly and quantitatively. Make use of structure. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. 	
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2学期 中間試験 Term 2 Midterm

Name of Unit, Project 単元名	・Change and Correspondence	Textbooks / Materials 使用教科書 / 教材	Shin-Chu-Mon for 7 th Grade, Gateway to the Future Math 1 / Worksheets, Khan Academy
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Unit Description 単元の概要	<ul style="list-style-type: none"> ・Students will learn the basic properties of functions. ・Students will learn how to graph proportions and inverse proportions. ・Students will learn how proportions and inverse proportions apply to the real world.
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Unit Standards 本単元の内容と評価規準			Others 備考	
楽	A3 <ul style="list-style-type: none"> ・Apply knowledge to solve a real-world problem. ・Apply mathematical reasoning. ・Analyze proportional relationships and use them to solve real-world and mathematical problems. 	B3 <ul style="list-style-type: none"> ・Reason mathematically. ・Model with mathematics. ・Investigate chance processes and develop, use, and evaluate probability models. 	C3 <ul style="list-style-type: none"> ・Create an original problem or model that benefits society. ・Construct viable arguments. ・Investigate chance processes and develop, use, and evaluate probability models. 	
好	A2 <ul style="list-style-type: none"> ・Use the given information to solve a problem. ・Make sense of problems and persevere in solving them. ・Attend to precision. ・Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. 	B2 <ul style="list-style-type: none"> ・Connect mathematical concepts. ・Critique the reasoning of others. ・Draw, construct and describe geometrical figures and describe the relationships between them. 		C2 <ul style="list-style-type: none"> ・Efficiently deconstruct problems. ・Use tools strategically. ・Draw informal comparative inferences about two populations.
知	A1 <ul style="list-style-type: none"> ・Identify the problem and given information. ・Know the meaning of key vocabulary. 	B1 <ul style="list-style-type: none"> ・Break down a problem into manageable components. ・Look for structure. ・Identify the logical units of a problem and their connections ・Solve real-life and mathematical problems using numerical and algebraic expressions and equations. 		
	Recognition	Logical Thinking	Creative Thinking	

<評価方法>

- ・Classwork and assessment
- ・Homework and assessment
- ・Chapter Quiz
- ・Exam

<ICT・Creation>

- ・Renaissance Adaptive Learning Program
- ・Khan Academy
- ・Quizlet
- ・Google Classroom and Google Apps (Docs, Sheets, Slides)

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2学期 期末試験 Term 2 Final

Name of Unit, Project 単元名	・Plane Figures	Textbooks / Materials 使用教科書 / 教材	Shin-Chu-Mon for 7 th Grade, Gateway to the Future Math 1 / Worksheets, Khan Academy
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Unit Description 単元の概要	<ul style="list-style-type: none"> ・Students will learn basic properties of lines and angles. ・Students will learn basic figure construction using a ruler and compass. ・Students will learn properties of circles and sectors.
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Unit Standards 本単元の内容と評価規準			Others 備考
楽	A3 <ul style="list-style-type: none"> ・Apply knowledge to solve a real-world problem. ・Apply mathematical reasoning. ・Analyze proportional relationships and use them to solve real-world and mathematical problems. 	B3 <ul style="list-style-type: none"> ・Reason mathematically. ・Model with mathematics. ・Investigate chance processes and develop, use, and evaluate probability models. 	<評価方法> ・Classwork and assessment ・Homework and assessment ・Chapter Quiz ・Exam <ICT・Creation> ・Renaissance Adaptive Learning Program ・Khan Academy ・Quizlet ・Google Classroom and Google Apps (Docs, Sheets, Slides)
好	A2 <ul style="list-style-type: none"> ・Use the given information to solve a problem. ・Make sense of problems and persevere in solving them. ・Attend to precision. ・Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. 	B2 <ul style="list-style-type: none"> ・Connect mathematical concepts. ・Critique the reasoning of others. ・Draw, construct and describe geometrical figures and describe the relationships between them. 	
知	A1 <ul style="list-style-type: none"> ・Identify the problem and given information. ・Know the meaning of key vocabulary. ・Use properties of operations to generate equivalent expressions. 	B1 <ul style="list-style-type: none"> ・Break down a problem into manageable components. ・Look for structure. ・Identify the logical units of a problem and their connections ・Solve real-life and mathematical problems using numerical and algebraic expressions and equations. 	
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3学期 期末試験 Term 3 Final

Name of Unit, Project 単元名	<ul style="list-style-type: none"> Space Figures; Making use of Data (Statistics) 	Textbooks / Materials 使用教科書 / 教材	Worksheets, Khan Academy
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Unit Description 単元の概要	<ul style="list-style-type: none"> Students will learn to understand and visualize 3D figures. Students will learn how to find the surface area and volume of various solids. Students will learn to collect and analyze data using statistical measurement.
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Unit Standards 本単元の内容と評価規準			Others 備考	
楽	A3 <ul style="list-style-type: none"> Apply knowledge to solve a real-world problem. Apply mathematical reasoning. Analyze proportional relationships and use them to solve real-world and mathematical problems. 	B3 <ul style="list-style-type: none"> Reason mathematically. Model with mathematics. Investigate chance processes and develop, use, and evaluate probability models. 	C3 <ul style="list-style-type: none"> Create an original problem or model that benefits society. Construct viable arguments. Investigate chance processes and develop, use, and evaluate probability models. 	
好	A2 <ul style="list-style-type: none"> Use the given information to solve a problem. Make sense of problems and persevere in solving them. Attend to precision. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. 	B2 <ul style="list-style-type: none"> Connect mathematical concepts. Critique the reasoning of others. Draw, construct and describe geometrical figures and describe the relationships between them. 		C2 <ul style="list-style-type: none"> Efficiently deconstruct problems. Use tools strategically. Draw informal comparative inferences about two populations.
知	A1 <ul style="list-style-type: none"> Identify the problem and given information. Know the meaning of key vocabulary. Use properties of operations to generate equivalent expressions. 	B1 <ul style="list-style-type: none"> Break down a problem into manageable components. Look for structure. Identify the logical units of a problem and their connections Solve real-life and mathematical problems using numerical and algebraic expressions and equations. 		
	Recognition	Logical Thinking	Creative Thinking	

<評価方法>

- Classwork and assessment
- Homework and assessment
- Chapter Quiz
- Exam

<ICT・Creation>

- Renaissance Adaptive Learning Program
- Khan Academy
- Quizlet
- Google Classroom and Google Apps (Docs, Sheets, Slides)