

April 2019

ISB Curriculum

Principles and Practices



Dr. Elizabeth Rossini and
Bronwyn Weale

Learning Design Center (LDC)

Mixed use space above the MS/HS library.





Dr. Elizabeth Rossini, Khun Didi, Khun Joom, Bronwyn Weale

The LDC Team

- We work collaboratively across all three divisions (HS, MS, ES) on curriculum and professional learning related priorities, tasks and events.
 - We lead initiatives across PK12 and support initiatives at the divisional levels.
 - We work with every department within the school in some capacity.
-



Curriculum at ISB

Designed to

- engage students in exploring and deepening their understanding of important ideas.
 - provide students with knowledge and skill necessary to understand deeply.
 - ensure students can transfer their learning within and outside of school.
-

Our school goals
frame our curricular
decisions



Enriching communities through the intellectual, humanitarian, and creative thoughts and actions of our learners

AT ISB, WE DEVELOP LEARNERS

WHO ARE



Creative



Globally-minded



Adaptable



Value-driven



Socially-intelligent



Self-managing

WHO WILL

- ▶ Achieve their academic and personal potential
- ▶ Be passionate, reflective learners
- ▶ Become caring global citizens
- ▶ Lead healthy, active, balanced lives

THROUGH LEARNING THAT IS

Meaningful and transferable, where understanding is constructed by developing and applying knowledge, skills and attitudes.

ISB VALUES

CARE RESPONSIBILITY COMMITMENT GRATITUDE
COURAGE BALANCE RESPECT INTEGRITY



The Future of Work

WHAT ARE THE TOP 10 SKILLS YOU'LL NEED TO THRIVE IN 2020?

1 Complex Problem Solving

The skill to see relationships between industries and craft creative solutions to problems that are yet to appear is a must to keep up with AI machines.



2 Critical Thinking

People who can turn data into insightful interpretations will be sought after due to the complexity and interconnectedness of various fields like computer science, engineering, and biology.



3 Creativity

The quality of randomness and the ability to build something out of ideas is a skill that will pay off now and in the future.



4 People Management

Robots may acquire analytical and mathematical skills, but they can't replace humans in leadership and managerial roles that require people skills.



5 Coordinating with Others

Effective communication and team collaboration skills will be a top demand among job candidates in any industry.



6 Emotional Intelligence

Qualities that relate to emotional intelligence such as empathy and curiosity will be a big consideration factor for hiring managers of the future.

7 Judgment and Decision-Making

The ability to condense vast amounts of data, with the help of data analytics, into insightful interpretations and measured decisions is a skill that will be useful in the information age.



8 Service Orientation

People who know the importance of offering value to clients in the form of services and assistance will be in demand as businesses would want to provide solutions to the problems of society.

9 Negotiation

The ability to negotiate with businesses and individuals to come up with a win-win situation is a skill that will be needed to survive in affected industries.



10 Cognitive Flexibility

The ability to switch between different personas to accommodate the challenge at hand will be important to be successful in combined industries.

We also examine at what is happening outside of education.

World Economic Forum
“Skills of the Future”

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OUR PHILOSOPHY

Freedom Within Structure

A curriculum that embodies our vision, mission, attributes and definition of learning

- Focusing on meaningful and transferable learning

A curriculum structure that...

- Provides coherence across grades/subjects
- Identifies the goals and levels of rigor expected
- Provides clarity about where, within the structure, there is freedom for teachers to innovate

A way to clearly communicate the goal(s) of our programs

Our Curriculum Structure

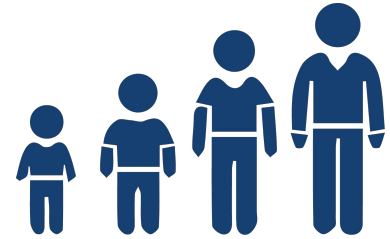


Macro Curriculum

The broad goals of the ISB curriculum organized by subject areas.

Includes philosophy statements, PK12 frameworks and standards.

Designed across Pre Kindergarten through Grade 12 and aligned to the IB program.



Micro Curriculum

Course and grade level designs.

Organized into 2.5-10 week units of instruction.

Designed for students within the course and grade level and aligned to the macro curriculum.

Many pieces fit together to create ISB's curriculum

Broad, transferable goals/ideas

Philosophies About Learning



Course/Grade Level Standards

Units of instruction providing
the context for the larger goals

The curriculum is organized in the following categories

Discipline Specific

- Math
- Science
- Social Studies
- English
- World Languages
- Native Languages
- Health and Physical Education
- Visual Arts
- Performing Arts (drama, dance, music)
- English as an Additional Language
- Design, Technology, Engineering

Across Disciplines

- Culture of Care
- Information Communication Technology
- English as an Additional Language
- Learning Support
- ISB Learner Attributes
- Definition of Learning
- Experiential Outdoor Education

Please note: the behind the scenes organization of the PK12 curriculum is subject specific.

However, when it comes to classroom level curriculum things are much more interdisciplinary.

Our Curriculum Design Process

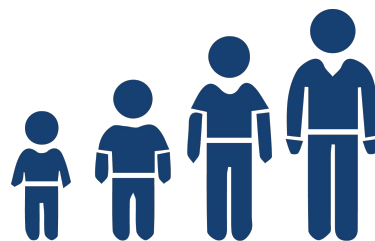
Designed using a common planning format called Understanding by Design



Macro Curriculum

Developed collaboratively by PK12 teams under LDC facilitation.

Supported by the divisional administration.



Micro Curriculum

Designed by course level and grade level teaching teams.

Supported by the LDC in collaboration with the divisional administration.



We use a backward design process...

to think through three important questions.

These questions help us stay focused on the learning goals

1. What are the learning goals?
2. What assessments will show evidence of meeting those goals?
3. What learning activities will prepare students for those assessments and those goals?

Just as a building site starts with a vision and broad goals, so does our curriculum. We start from our school goals.



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ISB VALUES

CARE RESPONSIBILITY COMMITMENT GRATITUDE
COURAGE BALANCE RESPECT INTEGRITY



Just as a master planner would closely envision each area of the building site, we zero in on each subject area to develop our philosophy of learning in that area.



ISB PK-12 Math Education Philosophy

We believe mathematics... is an essential universal language, necessary as a reasoning tool to solve problems and make sense of our world.

We believe mathematical thinkers... use reasoning and apply skills to solve problems and make informed decisions about their world.

We believe successful mathematical thinkers will be able to:

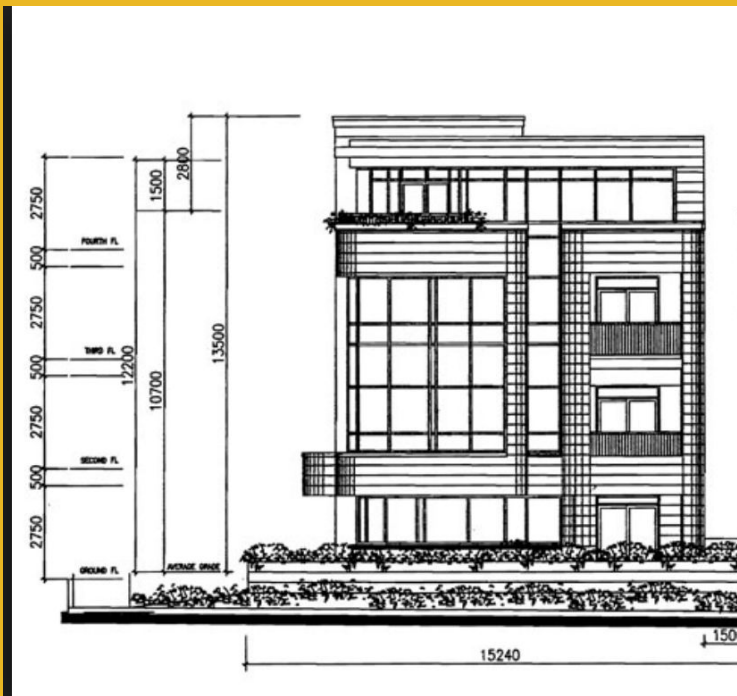
- actively explore, question, and dialogue with others
- recognize and use interconnections of mathematical ideas to build understanding
- select, apply, evaluate, and adapt: multiple strategies and tools to solve problems, apply the skills and procedures of mathematics efficiently, appropriately, and accurately
- clearly communicate thinking in varied ways using the language of mathematics
- reflect, justify, evaluate, and extend their own thinking as well as the thinking of others
- demonstrate conceptual understanding
- demonstrate curiosity, risk taking, flexibility, perseverance, self-reliance, and creativity

We believe mathematics learning happens best when... learners build upon prior knowledge to actively construct and monitor their understanding through developmentally appropriate, challenging and meaningful investigations aligned to a coherent curriculum.

Once all the buildings are envisioned, builders then look at the specifications for each building.

We do the same thing.

We think deeply about the key goals for each curriculum area.



ISB PK12 Macro Curriculum Framework - Math

PHILOSOPHY OF MATH @ ISB

We believe mathematics is an essential universal language, necessary as a reasoning tool to solve problems and make sense of our world. At ISB mathematical thinkers use reasoning and apply skills to solve problems and make informed decisions about their world.

TRANSFER GOALS

Students will be independently able to...

1. Recognise and solve never-seen-before, 'messy' mathematical problems in which the appropriate solution is not obvious.
2. Interpret and persevere in solving complex mathematical problems using strategic thinking and expressing answers with a degree of precision appropriate for the problem.
3. Apply mathematical knowledge to analyze and model mathematical relationships in the context of a situation in order to make decisions, draw conclusions and solve problems.
4. Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.
5. Recognize and make sense of quantities and their relationships by reasoning abstractly in a given situation and by creating a coherent representation.

ENDURING UNDERSTANDINGS

Students will understand that...

1. The way data is collected, organized and displayed influences interpretation.
2. Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.
3. Mathematics is based on patterns, relationships and a defined set of rules which interconnect and help us explain math concepts and describe natural phenomena.

ESSENTIAL QUESTIONS

Students will consider such questions as...

- a. How can we gather, organize and display data to communicate and justify real world phenomena?
 - b. How could I solve this problem?
 - c. How could I model patterns & relationships?
- a. How do I determine the best mathematical representation (numerical, pictorial, symbolic, objects) for a given situation?

The next step for builders would be to zero in on the specifications for each floor. We also zero in further to determine what learning should look like at each grade level using subject specific standards and IB course specific aims.



Grade 7

Draw, construct, and describe geometrical figures and describe the relationships between them.

CCSS.MATH.CONTENT.7.G.A.1

Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

CCSS.MATH.CONTENT.7.G.A.2

Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

CCSS.MATH.CONTENT.7.G.A.3

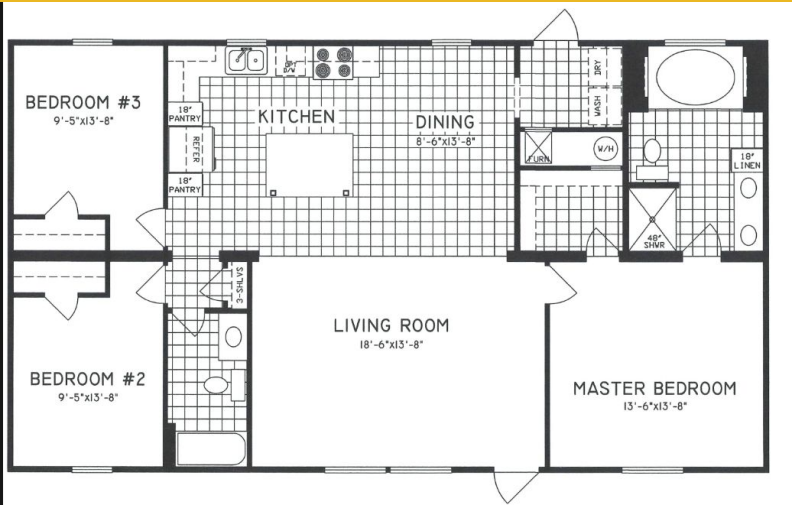
Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

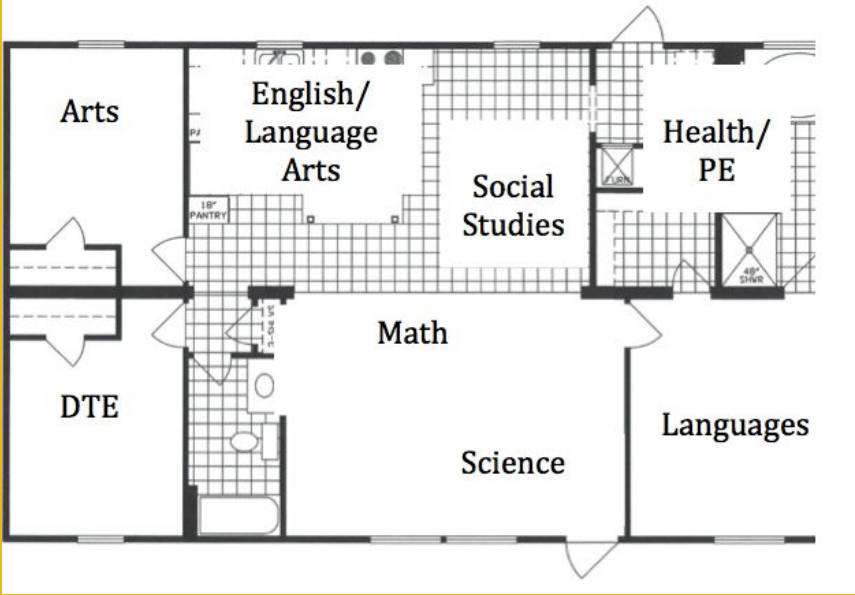
CCSS.MATH.CONTENT.7.G.B.4

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

A further refinement for our planning is that teachers attend to the different grade level needs of their learners sometimes in subject specific units and sometimes in cross subjects units/collaborations.



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Coherence Matters

Just as a building site needs to be well articulated and planned, so does a curriculum.

Our teachers have the tools necessary to build their units of instruction and daily lessons to ensure they are meeting the grade level goals, the program goals and ultimately the school goals.

This is all by design!

Unit #:		Duration:		Date(s)	
ISBan-00042540				05-06-2017 to 05-25-2017	
Team: Michelle Ahoy (Author), Jonathan Steenwijk, Stacie Melhorn, Rosanne Major, Shafiq Aweida Grade(s) 7 Subject(s) Mathematics Course(s) Math 7					
Stage 1: Desired Results - Key Understandings					
Standard(s)			Transfer		
Common Core <i>Mathematics: 7</i> <ul style="list-style-type: none"> Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences. <i>CCSS.MATH.CONTENT.7.SP.A.1</i> Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly 			T1 Recognise and solve never-seen-before, 'messy' mathematical problems in which the appropriate solution is not obvious.		
			T2 Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.		
			Meaning		
			Understanding(s)		Essential Question(s)
			U1 Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.		Q1 How can predictions be made based on data?
			U2 Real world experiments, trials, and		Q2 How can I influence the outcome of an event? When are the odds in my favour?

Unit Level



G7 U5 - Statistics and Probability

Unit #:	ISBan-00042540	Duration:		Date(s)	05-06-2017 to 05-25-2017
Team: Michelle Ahoy (Author), Jonathan Steenwijk, Stacie Melhorn, Rosanne Major, Shafiq Aweida Grade(s) 7 Subject(s) Mathematics Course(s) Math 7					
Stage 1: Desired Results - Key Understandings					
Standard(s)			Transfer		
Common Core <i>Mathematics: 7</i> <ul style="list-style-type: none"> Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences. <i>CCSS.MATH.CONTENT.7.SP.A.1</i> Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly 			T1 Recognise and solve never-seen-before, 'messy' mathematical problems in which the appropriate solution is not obvious.		
			T2 Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.		
Meaning					
			Understanding(s)		Essential Question(s)
			U1 Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.	Q1 How can predictions be made based on data?	
			U2 Real world experiments, trials, and	Q2 How can I influence the outcome of an event? When are the odds in my favour?	

Grade/ Course Level

Grade 7

Draw construct, and describe geometrical figures and describe the relationships between them.

CCSS.MATH.CONTENT.7.G.A.1

Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

CCSS.MATH.CONTENT.7.G.A.2

Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

CCSS.MATH.CONTENT.7.G.A.3

Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

CCSS.MATH.CONTENT.7.G.B.4

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

Unit Level

International School Singapore		G7 US - Statistics and Probability	
Unit #	ISBN: 00042540	Duration:	Revised:
1			05-04-2017 to 05-25-2017
Team: Mr. Arif Aliy (Author), Jonathan Stoenwijk, Stacie Melhorn, Rosanne Major, Shafile Awada			
Subject(s): Mathematics			
Course(s): Grade 7			
Unit 1			
Stage 1: Desired Results - Key Understandings			
Standards(s)	Transfer		
Common Core Mathematics - 7 <ul style="list-style-type: none">Understand that statistics can be used to gain information about a population by examining a sample of the population. Generalizations about a population from a sample are valid only if the sample is representative of the population. Understand that random sampling tends to produce representative samples and support valid inferences.CCSS.MATH.CONTENT.7.SP.A.1	T1 Recognition and solar never-seen-before, "messy" mathematical problems in which the appropriate solution is not obvious.		
	T2 Expanses appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.		
	Meaning		
	Understanding(s)	Essential Question(s)	
	U1 Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.	Q1 How can predictions be made based on data?	
	U2 Real world experiments, trials, and school election based on sampling.	Q2 How can I influence the outcome of an event? What are the odds in my favour?	
Page 1 of 3			

Program Level

ISB PK12 Macro Curriculum Framework - Math

PHILOSOPHY OF MATH @ ISB

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ISB PK-12 Math Education Philosophy

Students will be independent

1. Recognise and solve problems
2. Interpret and present precision appropriately
3. Apply mathematical decisions, draw conclusions
4. Express appropriate precision when making representation.

We believe mathematics... is an essential universal language, necessary as a reasoning tool to solve problems and make sense of our world.

We believe mathematical thinkers... use reasoning and apply skills to solve problems and make informed decisions about their world.

We believe successful mathematical thinkers will be able to:

- actively explore, question, and dialogue with others
- recognize and use interconnections of mathematical ideas to build understanding
- select, apply, evaluate, and adapt: multiple strategies and tools to solve problems, apply the skills and procedures of mathematics efficiently, appropriately, and accurately
- clearly communicate thinking in varied ways using the language of mathematics
- reflect, justify, evaluate, and extend their own thinking as well as the thinking of others
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- demonstrate curiosity, risk taking, flexibility, perseverance, self-reliance, and creativity

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Grade Level

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CCSS.MATH.CONTENT.7.GA.1

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CCSS.MATH.CONTENT.7.GA.2

Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

CCSS.MATH.CONTENT.7.GA.3

Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

CCSS.MATH.CONTENT.7.GB.4

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

Unit Level

International School Kajang		G7 US - Statistics and Probability		
Unit #	ISBN-00042540	Duration:	Weeks:	05-06-2017 to 05-25-2017
Teacher: Ms. Nancy Almy (Author), Jonathan Stoerwijk, Stacie Mathern, Rosanne Major, Shafiq Awada				
Subject(s): Mathematics				
Course(s): Math 7				
Stage 1: Desired Results - Key Understandings				
Standard(s)	Transfer			
Common Core Mathematics: 7 7-1 Understand that statistics can be used to gain information about a population by examining a sample of the population. Generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences. CCSS.MATH.CONTENT.7.SP.A.1	T1 Recognition and safety never seen before. "Tossy" mathematical problems in which the appropriate solution is not obvious. T2 Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.			
		Meaning	Essential Question(s)	
	U1 Generate multiple samples (or simulated variation in outcomes) or predictions. For example, approximate the mean word length in books by randomly selecting words from the books, predict the winner of a school election based on random	Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.	Q1 How can predictions be made based on data? Q2 How can I influence the outcome of an event? When are the odds in my favour?	

School Level

ISB INTERNATIONAL SCHOOL BANGKOK



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Program Level



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4. Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.
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ESSENTIAL QUESTIONS

Students will consider such questions as...

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Grade Level

Grade 7

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Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

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Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

CCSS.MATH.CONTENT.7.G.A.4

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

Unit Level

International School Bangkok		GT US - Statistics and Probability		
Unit #:	ISB-00042540	Duration:	Weeks:	05-06-2017 to 05-25-2017
Team:	Ms. Kelly Almy (Author), Jonathan Stoenick, Stacie Melhorn, Rosanne Major, Shelly Awada			
Grade(s):	7			
Subject(s):	Mathematics			
Course(s):	Math 7			
Stage 1: Desired Results - Key Understandings				
Standards(s)		Transfer		
Common Core Mathematics: 7-8	7-11	Recognition and solve never-seen-before, "messy" mathematical problems in which the appropriate solution is not obvious.		
<ul style="list-style-type: none"> Understand that statistics can be used to gain information about a population by observing a sample of the population. Understand that a population that is representative about a population that is sampled are valid only if the samples is representative of the population. Understand that random sampling tends to produce representative samples and support valid inferences. 	<ul style="list-style-type: none"> Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple simulated (or randomized) samples to assess how the variation in estimates or predictions, for example, affects the margin of error. Use data by randomly sampling from the basic, predict the winner of a school election based on an analysis. 	<p>7-1</p> <p>Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.</p> <p>7-2</p> <p>Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.</p>	<p>Meaning</p> <p>How can predictions be made based on data?</p> <p>Q1</p> <p>How can I influence the outcome of an event? When are the odds in my favour?</p>	
Understanding(s)		Essential Question(s)		
	<p>U1</p> <p>Probability quantifies the likelihood that something will happen and enables us to make predictions and informed decisions.</p> <p>U2</p> <p>Express appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others, and attending to precision when making mathematical statements.</p>	<p>Q1</p> <p>How can predictions be made based on data?</p> <p>Q2</p> <p>How can I influence the outcome of an event? When are the odds in my favour?</p>		



ISB Curriculum Overview

[Description of ISB's Curriculum](#) and [Curriculum Glossary](#)

Cross Curricular: <ul style="list-style-type: none"> • ISB's PK-12 Culture of Care Framework • ISB's Experiential Outdoor Education Program • EAL and LS Philosophies <i>(in revision)</i> 										
Subject Areas	Literacy	Math	Science	Social Studies	World Languages	Arts	Physical Education	Health	Information Communication Technology	Design Technology & Engineering
Philosophy	ISB English Language Arts Philosophy	ISB Math Philosophy	ISB Science Philosophy	ISB Social Studies Philosophy	ISB World Language Philosophy	ISB Fine Arts Philosophy	ISB PE Philosophy	ISB Health Philosophy	ISB ICT Philosophy	DTE Philosophy ISB Design Cycle
PK-12 Macro Framework	English/ Language Arts	Math	Science	Social Studies	World Languages Thai Native	Drama Dance Music Visual Arts	PE	Health	ICT	DTE
Standards	Common Core State Standards USA (2010)	Common Core State Standards USA (2010)	Science Standards from Australian National Curriculum (2016)	ISB Standards (2013) SS Skills (2015)	ACTFL Standards USA (2011) ISB WL Continuum	Core Arts Standards USA (2014)	ISB PE Standards (USA and Ontario 2016)	ISB Health Standards (from Ontario/ Australia (2015))	ISTE USA (2016) American Association of School Librarians USA (2007)	DTE uses ISB's science and technology standards, the DTE Cycle and the IB DT aims.

* International Baccalaureate Diploma Programme (IBDP) syllabus is utilized in Grades 11 and 12 to support PK - 12 standards

Other ways we focus on coherence

Using common tools for
teaching, assessing and learning

ISB Narrative Continuum

Student Name _____

Narrative Continuum	Level 9	Level 10	Level 11	Level 12	Level 13
FOCUS Summary Synthesis Selection Analysis	Focuses the writing around ideas or lessons and includes closely related multiple scenes . Intentionally creates both short and long scenes, depending upon the importance of the micro-events. Attempts to elicit emotion from the reader through the manipulation of events in the story.	Focuses the writing around ideas or lessons, and/or a particular theme , and include closely related multiple scenes. Elicits emotion from the reader through the manipulation of events in the story.	Writes developed pieces with narrative arcs containing problem set-up, climax, and resolution . Attempts to link emotion clearly to the theme to get a response from the reader.	Writes developed pieces with clear narrative arcs that unfold purposefully . Engages the reader emotionally throughout the piece to better communicate a theme . Presents, in a believable manner, the larger meaning and/or theme of a story from the writer's interpretation of events.	Writes well-developed pieces that contain balanced elements that unfold purposefully and smoothly. Takes reader on an emotional journey , enabling them to understand the theme/larger meaning . Purposefully interprets and presents events to provide a more complex and nuanced exploration of theme.
	STRUCTURE Leads/Endings Organization Transition Words and Techniques	Piques the reader's interest by experimenting with different types of leads (e.g., a flashback, a letter or postcard, a list or a recollection or memory). Provides endings to storylines and creates a sense of closure by addressing the theme or message of a piece . Builds and resolves problems with a gradual, subtle story tension (e.g., effectively using foreshadowing or flashbacks, using action and events as well as internal dialogue and feelings of the characters). Attempts to use a story structure and paragraphing in order to develop characters and the overarching narrative. Uses a wide array of transition words/phrases to progress or move a story forward.	Piques the reader's interest by choosing a lead that best introduces the message of a story and setting up the tone and style of a piece . Provides logical endings to storylines, creating a sense of closure by addressing the theme or message of a piece. Builds and resolves problems using tension in engaging ways (e.g., uses backstory to develop main and secondary characters). Experiments with story structure and purposeful paragraphing in order to develop characters and the overarching narrative. Uses appropriate, varied transitions to create cohesion.	Piques the reader's interest by choosing a lead that best introduces the context and/or message of the story and sets up the tone, mood and style of a piece. Provides logical endings to storylines, creating a sense of closure by addressing the theme or message of a piece. Builds and resolves problems using tension in engaging and subtle ways (e.g., resolution has multiple levels and adds to the reader's understanding of theme and/or character). Chooses an effective story structure that further develops the characters, themes, or narrative . Uses appropriate, varied transitions to generate cohesion and create a sense of fluidity .	Crafts a compelling lead that effectively introduces the context and/or characters and sets up the tone, mood and style of a piece. Endings provide a sense of closure to a story while leaving the reader thinking about a deeper message . Builds and resolves problems using tension in engaging and subtle ways (e.g., resolution logically follows from the rest of the story and leaves the reader thinking). Chooses an effective story structure that further develops the characters, themes, or narrative. Uses appropriate, varied transitions to allow a story to unfold naturally from scene to scene .
DETAIL Setting Elaboration of Scenes Character Development	Brings to life the setting throughout a piece through the writer's choice of figurative and descriptive language . Elaborates narratives by using multiple, relevant details , highlighting the narrator/character's interpretation of the events. Uses dialogue and inner thinking to develop the character/narrator and to provide greater insight into their motivations, actions, and decision-making .	Weaves setting throughout writing to show the relationship between character and surroundings . Elaborates narratives by using descriptive detail, precise action, and internal thought , highlighting the significant sections within a narrative . Uses dialogue and inner thinking to reveal complexity and/or show the internal struggle of the character/narrator, as well as their personality.	Develops tone and mood of a piece through the language used to describe a setting. Elaborates narratives by using figurative and descriptive detail, precise action, and internal thought throughout a narrative, enhancing the narrative's message or theme . Uses dialogue and inner thinking flexibly to develop a believable complex character/narrator whose motivations, actions, and decisions are consistent with their internal self .	Conveys the theme or mood of the writing by weaving the setting descriptively throughout the piece. Elaborates narratives by incorporating a variety of descriptive details and precise actions, fluidly conveying the overall meaning or theme of a narrative . Weaves a character's internal life with the external aspects of a story , giving the reader nuanced insight into the character/narrator's motivations, actions and decisions.	Creates a setting that is fluidly integrated into the writing and that may possess symbolic value . Elaborates narratives by intentionally using figurative and descriptive language and evocative details for symbolic effect, conveying a larger meaning . Blends character/narrator's internal life seamlessly and believably with the external aspects of the story.

Narrative Informational Argument



Novice			Intermediate			Advanced		
		MSN/N+	MSI/MS1/HS1	MSA/HS2	HS SL1	HS SL2	HS HL	HS Lang. A
Low	Mid	High	Low	Mid	High	Low	Mid	Superior/High
Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
STANDARD: INTERPERSONAL: Students will converse, provide and obtain information, express feelings, emotions, and ideas, and exchange opinions in the target language.								
12.1.1.1 LEVEL 1 Interpersonal: Comprehend and use common greetings and leave-takings with culturally appropriate gestures.	12.1.1.9 LEVEL 2 Interpersonal: Comprehend and use with support common age-appropriate courtesies expressions, greetings, and leave-takings with culturally appropriate gestures and simple phrases.	12.1.1.16 LEVEL 3 Interpersonal: Perform greetings, leave-takings, and common classroom interactions using culturally appropriate gestures and simple phrases in a structured setting.	12.1.1.23 LEVEL 4 Interpersonal: Spontaneously perform greetings, leave-takings, and common classroom interactions using culturally appropriate gestures and oral expressions with awareness of present, past, and future tenses.	12.1.1.31 LEVEL 5 Interpersonal: Initiate talk spontaneously, converse and write about familiar topics using specific vocabulary and connectors, in the present, past, and future.	12.1.1.37 LEVEL 6 Interpersonal: Describe, and narrate events on topics related to the immediate and external environment in the present, past and future.	12.1.1.43 LEVEL 7 Interpersonal: Discuss current events and global issues and problems and offer own point of view.	12.1.1.48 LEVEL 8 Interpersonal: Present an opinion on important topics of the target language and culture (e.g., famous people, traditions, historical events, current events, global issues, health, science and technology).	12.1.1.54 LEVEL 9 Interpersonal: Initiate, develop, discuss, and present solutions to important issues and problems of the target and their own cultures.
12.1.1.2 Respond about one's own and others' names, ages, and origin.	12.1.1.10 Ask and answer questions about name, age, origin, birthday and phone number, and address.	12.1.1.17 Exchange information and opinions with simple phrases on a familiar topic, and follow simple directions.	12.1.1.24 Give and follow simple instructions as part of age-appropriate classroom or cultural activities or both.	12.1.1.32 Ask for information, follow and give directions orally and in writing.	12.1.1.38 Ask and respond to questions using a wide range of vocabulary on familiar topics.	12.1.1.44 Pose and respond to specific questions for clarification or follow up on information.	12.1.1.49 Exchange ideas, and support opinions and solutions on a variety of topics including current and controversial issues.	12.1.1.55 Exchange, support, and discuss opinions with fluid use of language on a variety of topics dealing with contemporary and historical issues.
12.1.1.3 Use memorized questions (words and phrases) to make basic requests.	12.1.1.11 Answer questions that require descriptions about people, places, and things.	12.1.1.18 Ask and answer simple questions related to familiar and age-appropriate topic which includes information about when, why, where, and with whom.	12.1.1.25 Independently ask and answer questions about familiar topics.	12.1.1.33 Discusses social and academic topics about the places and culture of the target country with increasing complexity of target language.	12.1.1.39 Exchange information and points of views on curricular and extracurricular subjects.	12.1.1.45 Exchange detailed information and compare, contrast, and express opinions and preferences about personal events, feelings and emotions, with peers or members of the target cultures.	12.1.1.50 Express an informed independent response to literary and non-literary texts.	12.1.1.56 Engage in authentic communication during visits, field trips, community service activities, etc.



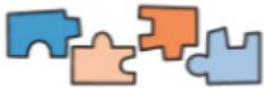






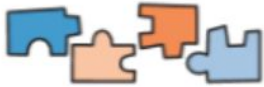







ISB ES Problem Solving Scoring Tool - Teacher

	1 Uh-oh	2 Hmmm...	3 Yes	4 Wow!
<p>Interpretation of the Problem MP 1</p> <p>Did the student show understanding of what was being asked of them?</p>	Shows serious misunderstanding	Shows partial or incomplete understanding	Shows understanding of what is being asked. <ul style="list-style-type: none"> ➤ Accurately interprets the problem. ➤ Identifies important information in the problem. 	
<p>Concepts and Procedures MP 2, 7, 8</p> <p>Did the student show understanding of concepts and procedures?</p> <p>Major Content: -----</p>	Misconceptions are revealed through major inaccuracies and/or significant errors	Error(s) detract from result and reveal misunderstanding	Students' work shows understanding of the concepts being addressed in the task. <ul style="list-style-type: none"> ➤ Works with fluency (efficiently, accurately, flexibly). ➤ Recognizes patterns and structures (i.e. within numbers and operations) that support efficiency. ➤ Minor inaccuracies do not affect overall result. 	Concepts and procedures used show a unique and/or novel application of learning.
<p>Modeling MP. 4,5</p> <p>Did the student model the Mathematics?</p>	Does not represent the Mathematics with a model or the model has major inaccuracies.	Uses a model but model shows inaccurate representation	Uses an accurate model(s) to represent the mathematics. <ul style="list-style-type: none"> ➤ Model(s) may be concrete (with manipulatives), pictorial (a picture or diagram) or abstract (numbers). ➤ Mathematics is modeled as the student makes sense of the problem, solves the problem and/or communicates their thinking to others. ➤ Chooses tools that are appropriate to the situation as necessary 	Uses a sophisticated model(s) to represent the mathematics.
<p>Communication MP 3, 6</p> <p>Did the student communicate their thinking clearly and thoroughly?</p>	Unclear; impossible to follow	Lacks clarity; difficult to follow	Generally clear; able to follow <ul style="list-style-type: none"> ➤ Justifies claims and communicates thinking to others in an understandable way. ➤ Uses precise notation. ➤ Attends to the meaning of the problem (i.e. quantities), not just how to compute. 	Exceptionally clear; easy to follow

Problem Solving Rubric

Common Across ES

ISB Problem Solvers

Learning Goal	Uh-Oh	Hmmm...	Yes	Wow!
I understood the problem.				
I solved the problem accurately and efficiently.				
I used models to show my thinking.				
I showed my thinking so others can understand.				

ISB's Design Cycle

EVALUATE

- the solution
- the process
- your peers
- yourself
- the impact
- success

MAKE

- a workplan
- a materials list
- it with skill
- it safely
- revisions as necessary



UNDERSTAND

- the problem/opportunity
- related information
- the vision/criteria for success
- limitations and constraints

DESIGN

- the specifications
- multiple ideas
- a chosen proposal

CELEBRATION





Math Example

Transfer Goal:

- Recognize and solve never-seen-before, 'messy' mathematical problems in which the appropriate solution is not obvious.

Understanding:

- Numerical and algebraic skills and concepts allow us to describe real world situations both symbolically, graphically and allow us to model relationships.

Question:

- How do I determine the best mathematical representation for a given situation?

Common Macro Goals and corresponding performance tasks



Students across multiple grades are working toward the same broad goals

PK12 Transfer Goal:

- Recognize and solve never-seen-before, 'messy' mathematical problems in which the appropriate solution is not obvious.

PK12 Enduring Understanding:

- Numerical and algebraic skills and concepts allow us to describe real world situations both symbolically, graphically and allow us to model relationships.

PK12 Essential Question:

- How do I determine the best mathematical representation for a given situation?



Grade 10 Performance Task

When you look up at the moon at night, sometimes it is full. At other times, you see a half moon or perhaps no moon at all. An astronomer made observations of the fraction of the moon visible over the first 66 days of the year 2000 (Day 1 is Jan. 1, 2000; Day 2 is Jan. 2, 2000, etc.) and the estimates for these values are given below. Analyze the given data table and use that to predict the fraction of the moon visible on March 1, 2000 and the number of days in each cycle that more than 75% of the moon is visible. Then, justify the accuracy of your results.



Grade 7 Performance Task

Lia claims to know this cool math trick. She asks Daniella to do the following: Start with any number. Add seven. Double the result. Subtract four. Half the result. Subtract 5. Is your answer the same as what you started with?" Daniella says "Yes! How did that happen?" Help Lia explain to Daniella how this "magic trick" works.



Grade 5 Performance Task

Three students at Rainbow House, Apple, Beam and Chanthara each have a box of "Cheer-E-Up" Cereal. Apple has eaten $\frac{2}{3}$ of her cereal box. Beam has eaten $\frac{3}{4}$ of his cereal box. Chanthara has eaten $\frac{1}{2}$ of his cereal box. Apple claims that if you put the leftover parts of the three "Cheer-E-Up" boxes together, it would total more than a whole box of "Cheer-E-Up" cereal. Beam disagrees. Which of the students is correct? Explain how you know visually or with words.



KG Performance Task:

I am planting a garden but I have a problem and I need your help. I really love sunflowers and beans so I'd like to have both in my garden. But, I only have space to have ten plants. I am trying to figure out how to plant both kinds of seeds in my garden. Help me figure out different ways to plant my garden. Draw your designs and be prepared to explain your thinking. Remember, I only have space for 10 plants.

The power of essential questions -
How does where you live determine how you live?



Why is Thailand hotter than Norway?

Data analysis helps us refine and revise our curriculum



We examine multiple data sources to make decisions about our curriculum and program offerings:

Data sources include:

- Classroom level
 - Unit assessment, observations, journals
- Grade level
 - DDDs, trends in performance, observations
- External data - MAP, ISA, IB
- Surveys - student, parent, teacher
- Program level
 - Cornerstone assessments, gap/overlap analysis, random sampling of student data, audit
- Feedback - principal forums, HoS forums, PTA, teacher to LDC, parent/student questions
- Trends in curriculum world wide

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