

Joe Michell

ELEMENTARY & MIDDLE SCHOOL

Middle Years Programme Curriculum



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Design
Visual & Performing Arts
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Core (Language & Literature + Individuals & Societies)
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Visual & Performing Arts
Mathematics
Sciences
Design
Language Acquisition (Spanish)

International Baccalaureate Mission

International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

The programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

The IB Learner Profile:

A singular capacity for invigorating campus life

Informed by the International Baccalaureate (IB) mission to develop active, compassionate and lifelong learners, the IB programmes foster a distinctive set of attributes. These qualities—embodied in the IB learner profile—prepare IB students to make exceptional contributions on campus.

Inquirers. They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

University faculties regularly note IB students' passion for discovery.

Knowledgeable. They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

IB students are extraordinarily well prepared for the academic requirements of university coursework.

Thinkers. They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.


IB students contribute to discussions in a meaningful way. They do not shy away from challenging questions and, once they know the answer, follow up by asking "why?"

Communicators. They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.

IB students regularly deliver stimulating presentations and drive excellence in group assignments.

Principled. They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.

IB students are infused with the academic integrity that is a fundamental value of universities and colleges.



Open-minded. They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

IB students have a deep understanding of various cultures and views, bringing an appreciation of new views to both their academic study and their involvement in local and wider communities. Their international mindedness complements the missions of the best tertiary institutions.

Caring. They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

IB students tell us they bring this commitment to community and others to their activities and leadership roles at university and carry it throughout their lives.

Risk-takers. They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.

IB students transition well to challenging university settings and show resilience and determination in their work. In academics, they have the confidence to approach new or unfamiliar subjects or material.

Balanced. They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.

IB students are active participants in a wide range of aspects of campus life, as well as focusing on their academic development.

Reflective. They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

IB students have developed an ability to reflect on their learning and to articulate how they learnt. They have learned that critical reflection is an important academic and life skill.

The International Baccalaureate Middle Years Program at Joe Michell School

The International Baccalaureate Organization (IBO), founded in 1968, is a non-profit educational organization with its headquarters located in Geneva, Switzerland.

The IBO has developed three programs for schools: the Primary Years Program (PYP), the Middle Years Program (MYP), and the Diploma Program (DP). To receive authorization as an IB World School, a school has to comply with a rigorous set of requirements. More information on the International Baccalaureate programs and standards is available on the IB website: www.ibo.org.

The three IB programs share many educational principles. Each program promotes the education of the whole person, emphasizing the importance of a broad and balanced education. All three programs promote international understanding, responsible citizenship, the importance of learning how to learn, and student-centred inquiry and communication. The IB programs provide a coherent educational experience that builds student growth from Transitional Kindergarten to Grade 12.

The MYP at Joe Michell includes grades 6, 7, and 8, and builds upon our PYP program, grades TK-5.



What's different about a middle school offering the MYP program?

The MYP is concept-driven and requires the development of intercultural awareness as well as international mindedness. It takes a holistic approach to education by helping students to see connections between what they are learning and their own lives through an inquiry-based framework; it furthermore emphasizes connections across and between eight different subject disciplines. Finally, the MYP fosters extensive development of both verbal and non-verbal communications skills.

Two key elements are emphasized in the delivery of this program:

● **Approaches to Learning** refers to the critical skill areas that transcend over all courses and need to be nurtured for effective, coherent and independent thought and inquiry.

● **Approaches to Teaching** refers to the kind of course planning and execution that is necessary for reinforcement of the critical skills as well as the core curriculum. It is meant to involve collaborative, authentic learning through inquiry and draws upon other models that Joe Michell teachers incorporate into their classroom practice (such as Dr. Carol Dweck's 'mindset' framework and the Integrative Thinking approach disseminated by the University of Toronto's Rotman School of Management).

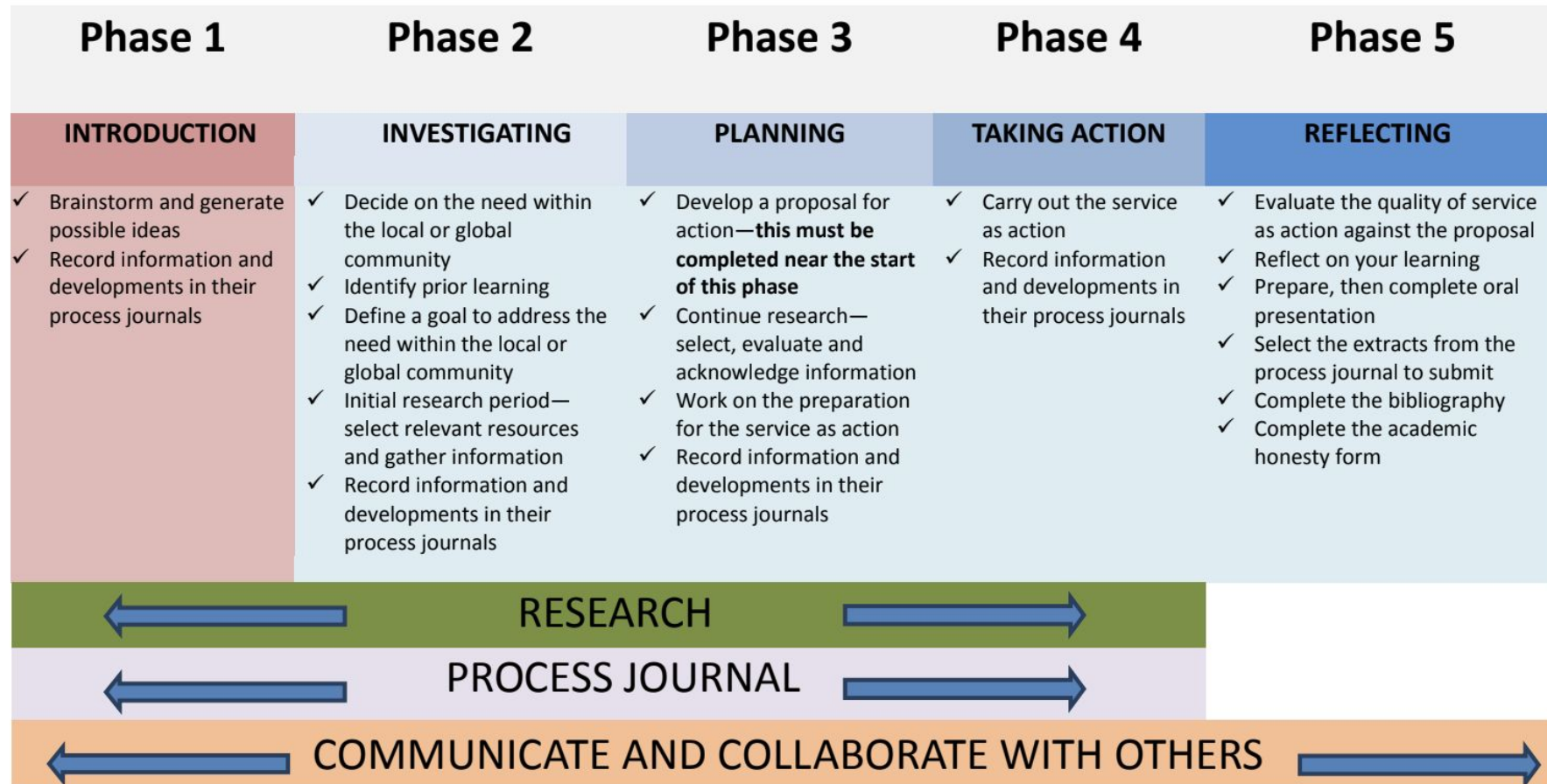
Student learning in the MYP occurs within a set of **Global Contexts**, which help young people understand what it means to be internationally minded and engaged in real-life issues and concerns. The Global Contexts are closely linked to the IB PYP transdisciplinary themes and are defined as follows:

Identities & Relationships promotes exploration of beliefs, values, self-image, positive interdependence and the place of community (through family, friends and culture).	Scientific & Technical Innovation promotes exploration of the natural world and how it interacts with humankind along with the application of scientific principles and technology.
Orientation in Time & Space promotes exploration of personal and social histories as well as discoveries, explorations, migrations and the interconnectedness of individuals and civilizations.	Globalization & Sustainability promotes exploration of human-made systems and communities as well as the relationship between local experiences and global processes.
Personal & Cultural Expression promotes exploration of the nature and purpose of creative activity along with how we reflect upon and appreciate aesthetic qualities.	Fairness & Development promotes exploration of rights and responsibilities, especially when it comes to sharing finite resources and conflict resolution.

The 8th Grade Community Project

As a way to demonstrate all the skills developed during their MYP years, each student completes a Community Project in their 8th grade year, either alone or in a team of 2 or 3. The Community Project is an opportunity for students to select a community they care about, identify the needs of that community, and design a way to take action to help that community. Students spend many months refining the skills required to engage in inquiry, action and reflection; to focus on and demonstrate an understanding of the Global Contexts; and to reflect on learning and sharing knowledge, views and opinions. The projects are shared with the public at a showcase event in May.

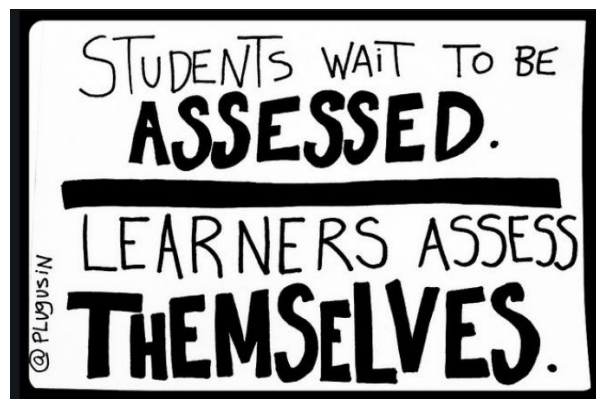
Community project timeline (example for students)



Assessment for Learning at Joe Michell

At Joe Michell TK-8 School, we believe that the purpose of assessment is to guide instruction and provide students with an opportunity to receive feedback and reflect on their own learning.. Our teachers use assessment to foster a learning culture that allows for students and teachers to grow as compassionate global citizens.

Teachers use the required IB rubrics for both formative and summative tasks, as well as for students to self-assess. At Back to School Night, parents are given information about the IB philosophy, growth mindset, and how the use of descriptive feedback and criterion-based scoring serves to deepen students’ understanding of their own strengths and weaknesses. MYP teachers have worked to standardize and calibrate their expectations when scoring students with the IB rubrics, to ensure consistency of rigor. They frequently share student work with one another and discuss what score each product deserves, and why.



Grading in the MYP: Using the IB Rubrics

At IB schools, we are interested in **describing** learning, not just **scoring** learning. When student learning is scored with an IB Rubric, it receives a score of 1-8 along with descriptions such as “thorough, insightful, nuanced...” The descriptions are more important than the score, because they can be used for reflection about how to **grow and progress** toward mastery of learning objectives and ATL skills.

If you receive a score of ↓ ↓ ↓	...that means your learning could be described using words like ↓ ↓ ↓	...and the percentage score would be recorded as ↓ ↓ ↓	...and the letter grade equivalent would be considered ↓ ↓
8	excell-ent, extended, depth, perceptive, innovative, extensive, sophisticated, insightful, nuanced, complex,	110%	A++
7	excell-ent, extended, depth, perceptive, innovative, extensive, sophisticated, insightful, nuanced, complex,	100%	A+
6	substantial, thoughtful, competent, significant	95%	A
5	substantial, thoughtful, competent, significant	85%	B
4	adequate, basic	78%	C+
3	adequate, basic	72%	C-
2	limited, minimal, superficial, beginning to..., has difficulty...	60%	D
1	limited, minimal, superficial, beginning to..., has difficulty...	50%	F
0	does not reach a standard identified by any of the above	---	---

Curriculum Information

In the MYP, all students take the same eight subjects every year. All subjects are of equal academic importance; none are considered electives. In addition, once a week for 30 minutes, students attend an advisory class where they explore topics related to social and emotional health. The activities in advisory are created by our school counselor.

Language & Literature MYP language and literature courses include a balanced study of genres and literary texts, including a world literature component. Through their studies, students learn how to form opinions, make decisions, and engage in ethical reasoning. Students develop skills in six domains—listening, speaking, reading, writing, viewing and presenting—both independently and with others.	Individuals & Societies The MYP individuals and societies subject group incorporates disciplines traditionally studied under humanities and social sciences. This subject group encourages learners to respect and understand the world around them, and equips them with the necessary skills to inquire into historical, geographical, political, social, economic, and cultural factors that affect individuals, societies and environments.
Language Acquisition (Spanish) Acquiring an additional language and exploring and reflecting on the cultural perspectives of our own and other communities is central to developing critical thinking and international-mindedness. It also provides an intellectual framework to support personal development, cultural identity and conceptual understanding and equips students with the necessary multiliteracy skills and attitudes to communicate successfully in various global contexts.	Mathematics The MYP mathematics and extended mathematics courses promote both inquiry and application, helping students to develop problem-solving techniques that transcend the discipline and are useful in the world outside school. Students will see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations.
Sciences With inquiry at the core, the MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation and experimentation. The MYP sciences curriculum explores the connections between science and everyday life. As they investigate real examples of science applications, students discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment.	Design MYP design challenges students to apply practical and creative-thinking skills to solve design problems; encourages students to explore the role of design in historical and contemporary contexts; and raises students' awareness of their responsibilities when making design decisions and taking action.
Visual & Performing Arts Arts in the MYP stimulate young imaginations, challenge perceptions, and develop creative and analytical skills. The course encourages students to understand the context and cultural histories of artworks, supporting the development of an inquiring and empathetic world view. Arts challenge and enrich personal identity and build awareness of the aesthetic in a	Physical and Health Education Students engaged in physical and health education will explore a variety of concepts that help foster an awareness of physical development and health perspectives, as well as positive social interaction. Physical activity and health are of central importance to human identity and global communities, creating meaningful connections among people,

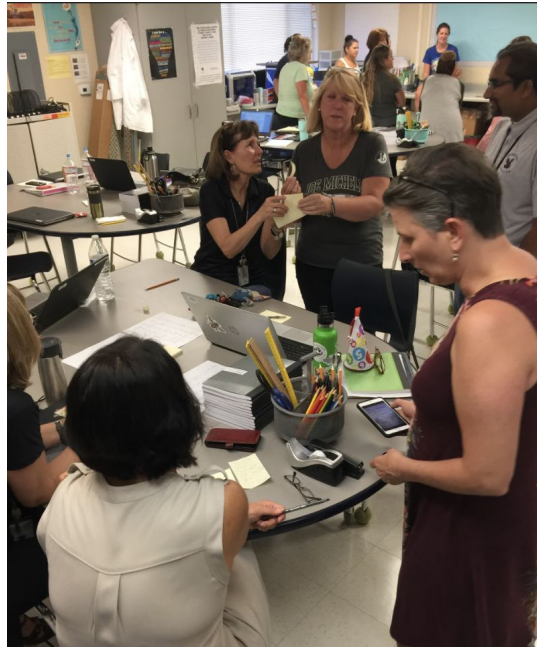
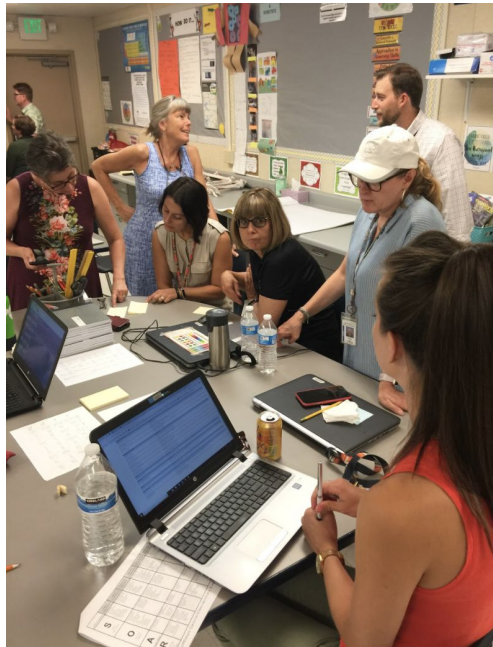
IB Units of Inquiry

Our teachers work collaboratively to develop units of inquiry that will engage students in meeting state and national standards, as well as IB standards and practices.

In the following pages you will see brief overviews of each unit.

Our teachers constantly update, revise and improve their units, so you may notice that some do not appear to be fully developed in this document. If you have any questions about these, please feel free to contact the teacher, who can fill you in on the details that may not have made it into this document by the time of publication.

Teachers' collaborative planning in action:



Bend Without Breaking

Global Context: Scientific & Technical Innovation

Theme Explorations: Progress

Key & Related Concepts: Development (*resources, innovation, revolution; narratives*)

Statement of Inquiry: Humans innovate based on needs with resources at hand to develop new technologies.

Inquiry Questions:

Factual: What does it mean to adapt? What is innovation? What is progress? What is narrative? What kinds of narratives are there?

Conceptual: How do humans interact with the environment? How does innovation rise out of human struggle? How do fiction and nonfiction stories help us understand human events in history? How do narratives help us communicate about real world events?

Debatable: Will human innovation stop? Why?

Assessment Criteria: ID: A. IS-Ai. LL-Ci .

IB Learner: Open-minded, Communicators

ATL Skills: Communication- Use appropriate forms of writing for different purposes and audiences. Thinking- Make connections between subject groups and disciplines.

Ancient Greece and Rome

Global Context: Personal & Cultural Expression

Theme Exploration: Social constructions of reality.

Philosophies and ways of life. Belief systems. Ritual and play.

Key & Related Concepts: Time, Place & Space (*self-expression, setting, purpose; ideology, civilization, governance*)

Statement of Inquiry: Stories are evidence of people trying to understand themselves and the world around them.

Inquiry Questions:

Factual: What were the political and religious beliefs of Ancient Greece? Why were myths created and what purpose did they serve?

Conceptual: How do stories help explain the way the world and humanity work? How does the geography of Greece affect the development of civilization in this location? Can we see the political ideals of Ancient Greece in our government today?

Debatable: Do democratic ideas ensure a civilization's longevity? Are stories an essential element of humanity?

Assessment Criteria: Interdisciplinary A, B, C, D

IB Learner:

ATL Skills:

The Rise to Civilization

Global Context: Orientation in Space & Time

Theme Explorations: natural and human landscapes and resources

Key & Related Concepts: Time, place & space (equity, processes; structure, style)

Statement of Inquiry: The structure of a civilization is an expression of time and place and is connected to its culture.

Inquiry Questions:

Factual: What defines a civilization? What were the values and beliefs of ancient civilizations? How do we identify "style" and "structure?"xxxxxxxxxxxxxx

Conceptual: How does geography shape a civilization? How does the rise of city-states relate to the development of religion? How does the development of agriculture relate to the emergence of cities? How does the development of cities relate to the evolution of language, science, and political/social order?

Debatable: Are social classes necessary for social control? Can you escape your social class?

Assessment Criteria:

IB Learner:

ATL Skills:

The Power of Philosophy & Religion

Global Context: Orientation in Space & Time

Theme Explorations: Peoples, boundaries, exchange and interaction. Natural and human landscapes and resources.

Key & Related Concepts: Global Interaction (*culture, audience imperatives*)

Statement of Inquiry: Evaluating cultures and global interactions highlights awareness of audience imperatives.

Inquiry Questions:

Factual: What is the physical geography of south and east Asia? What are the different belief systems of ancient India and China?

Conceptual: What is the difference between philosophy and religion? How does religion determine a society's way of life? How do societies keep order?

Debatable: Why are religions and philosophies such powerful forces? Is religion necessary to keep order and provide morals? Do the religions of one society affect others?

Assessment Criteria: Interd. B & C; LL A & B

IB Learner: Communicators

ATL Skills: Communication- Using language to gather and communicate information. Paraphrase accurately and concisely.

Strength in the Face of Adversity

Global Context: Fairness & Development

Theme Explorations: Democracy, politics, government, civil society. Human capability & development.

Key & Related Concepts: Culture (*innovation & revolution, power, processes, context, self-expression*)

Statement of Inquiry: Humans innovate or revolutionize based upon their context and culture.

Inquiry Questions:

Factual: What are the central beliefs of the Hebrews and Romans?

Conceptual: What role do literary elements play in helping the audience understand themes of a story and the past?

Debatable: To what extent can you change or control adversity in your life?

Assessment Criteria:

IB Learner:

ATL Skills:



Collaboration- Working effectively with others. Build consensus. Listen actively to other perspectives and ideas.

GRADE 7 Core: Language & Literature + Individuals & Society (Last updated Feb. 2020)

Joe Michell School

Civilizations of the Americas

Global Context: Identities and Relationships

Theme Explorations: Human nature & human rights

Key & Related Concepts: Global Interaction (point of view, culture, perspective)

Statement of Inquiry: A culture's point of view, values, and beliefs impact how humans treat one another during global interactions.

Inquiry Questions:

Factual: What were the different cultures and beliefs in ancient Latin American societies?

Conceptual: What are the different points of view of colonization? How do a person's values and beliefs connect to their living conditions?

Debatable: What do you think should be considered basic human rights?

Assessment Criteria: LL Aiii; Bii; Ci, iii. IS Ai, ii; Cii; Div.

IB Learner: Open-minded

ATL Skills: Communication- Use intercultural understanding to interpret communication. Negotiate ideas and knowledge with peers. Collaboration- Help others to succeed. Manage and resolve conflict and work collaboratively in teams.

A Perfect Society...Really?

Global Context: Fairness and Development

Theme Explorations: Government. Rights.

Key & Related Concepts: Connections (government structures, human rights)

Statement of Inquiry: Understanding governmental structures and their impact on human rights helps us make connections across various historical contexts.

Inquiry Questions:

Factual: How does historical context affect a reader's understanding of a story?

Conceptual: How do different forms of government compare in terms of quality of life?

Debatable: Is a perfect society ever really possible?

Assessment Criteria: LL Ci, ii, iii. Di, ii. ID B.

IB Learner:

ATL Skills:

Human Behavior, Human Dignity

Global Context: Identities and Relationships

Theme Explorations: Human Nature and Human Dignity

Key & Related Concepts: Global Interaction (culture, identity, conflict)

Statement of Inquiry: Individual human dignity can be impacted by the struggle between cultures in global interactions.

Inquiry Questions:

Factual: How can media representations skew people's perspectives toward different cultures & religions?

Conceptual: How do the worst parts of humanity sometimes overshadow the best parts of humanity?

Debatable: Can one person change the world to reduce human suffering and protect human dignity?

Assessment Criteria: LL Ai, iii; Bi; Ci, ii, iii; Di, ii, iii, iv. Interdisciplinary B: Synthesizing.

IB Learner: Open Minded

ATL Skills: Communication- Negotiate ideas and knowledge with peers and teachers. Structure information in summaries, essays & reports. Thinking- Analyze complex concepts and synthesize them to create new understanding. Transfer thinking (make connections between subject groups and disciplines).

Imperial China and Feudal Japan

Global Context: Orientation in Space and Time

Theme Explorations: Turning points and “big history”

Key & Related Concepts: Perspective (power, identity)

Statement of Inquiry: Historical turning points occur when those in power impact perspective and identity.

Inquiry Questions:

Factual: Who has power in imperial and feudal societies?

Conceptual: How does type of government impact a citizen's identity?

Debatable: Can a reader's perspective really be changed by a novel's themes?

Assessment Criteria:

IB Learner:

ATL Skills:

A Life Woven From Difficulty

Global Context: Orientation in Space and Time

Theme Explorations: Peoples. Interactions.

Key & Related Concepts: Connections (character, setting, causality)

Statement of Inquiry: Making connections through characters and setting allows us to understand causality and complex situations in the world.

Inquiry Questions:

Factual: What techniques do authors use to bring history to life? What is meant by the term “Holy Land”?

Conceptual: How can a reader use quotes from literature to understand an author's message?

Debatable: Does what you read affect your behavior and impact the choices you make? Who has it easier -- people today, or those from the past?

Assessment Criteria: ID B. LL Ai.

IB Learner:

ATL Skills: Communication- Collaborate with peers/experts using a variety of digital environments. Information Literacy- Make connections between various sources of information. Organization- Create plans to prepare for summative tests.



GRADE 8 Core: Language & Literature + Individuals & Society (Last updated Feb. 2020)

Joe Michell School

The Power of Diversity

Global Context: Globalization & Sustainability

Theme Explorations: Commonality. Diversity & Interconnection.

Key & Related Concepts: Global Interaction (theme, power)

Statement of Inquiry: Global interaction can create opportunities, tensions, and shifts in power.

Inquiry Questions:

Factual: How does a parable transcend time and place to employ a universal theme?

Conceptual: As power shifted in the early Americas, how did oppression manifest in both the community and the individual? How can writing be used to affect change in society?

Debatable: In the context of today's global interactions, is opportunity for collaboration or the tension of competition more powerful? Can a society's wrongs be righted?

Assessment Criteria: ID B; IS D

IB Learner: Open-minded, Inquirers

ATL Skills: Critical Thinking- Analyse complex concepts and projects into their constituent parts and synthesise them to create new understanding. Organization- Use appropriate strategies for organizing complex information. Communication- Read critically and for comprehension.

Life, Liberty and the Pursuit of Happiness

Global Context: Personal and Cultural Expression

Theme Explorations: Belief systems. Argument.

Key & Related Concepts: Perspective (point of view, identity, conflict)

Statement of Inquiry: Identity can evolve when there are conflicting perspectives.

Inquiry Questions:

Factual: What causes a revolution?

Conceptual: What do all revolutions have in common?

Debatable: Is violence a sound strategy to bring about political and social change?

Assessment Criteria: ID A, B, C, D. LL A, B, D.

IB Learner: Thinkers, Communicators

ATL Skills: Communication- Negotiate ideas and knowledge with peers and teachers. Media Literacy- Seek a range of perspectives from multiple and varied sources. Critical Thinking- Develop contrary or opposing arguments.

We The People

Global Context: Fairness and Development

Theme Explorations: Imagining a hopeful future

Key & Related Concepts: Culture (character, causality)

Statement of Inquiry: A nation's culture can influence an individual's ability to imagine a hopeful future.

Inquiry Questions:

Factual: How does democracy compare to other forms of government?


Conceptual: Why is it important that a government's power is limited?

Debatable: What is the American Dream and how does it compare to other nations' ideals? How does a person's circumstances impact their definition of the American Dream? Does the US Constitution ensure equity? What are the best ways to be an active citizen?

Assessment Criteria:

IB Learner:

ATL Skills:

<p>Make inferences and draw conclusions.</p>		
<p>Manifest Destiny Global Context: Orientation in Space and Time Theme Explorations: Evolution. Migration. Key & Related Concepts: Change (patterns) Statement of Inquiry: Immigration creates recurring patterns of change across space and time. Inquiry Questions: <u>Factual:</u> How did the growth of our nation in the 1800s affect various groups within the population? <u>Conceptual:</u> What ideas were authors and artists trying to convey during their respective historical time periods? How did perspectives evolve during the 1800s? <u>Debatable:</u> Was the notion of Manifest Destiny good or bad for people in our nation? How has the history of immigration in our nation affected our perspectives about it today? Assessment Criteria: IB Learner: ATL Skills:</p>	<p>The Power of Storytelling, Language & Words Global Context: Personal and Cultural Expression Theme Explorations: Critical Literacy Key & Related Concepts: Communication (purpose, power) Statement of Inquiry: Language is a powerful tool that can communicate our purpose to the world. Inquiry Questions: <u>Factual:</u> What is critical literacy? What is diplomacy? <u>Conceptual:</u> What is the relationships between language, stories, and power? How do stories, language, and words shape an individual? In what ways can stories be a burden? How can the power of language be used to manipulate? To empower? What role does media play in our society? <u>Debatable:</u> Where does the meaning of the story reside? In the text? In the reader? Assessment Criteria: IB Learner: Communicators ATL Skills: <u>Communication</u>- Use intercultural understanding to interpret communication. Negotiate ideas and knowledge with peers and teachers.</p>	

GRADE 6 Mathematics (Last updated Feb. 2020)

Joe Michell School

<p>Are You an Outlier? Global Context: Identities and Relationships. Theme Explorations: Asking statistical questions about one's own life or relationships, and making connections to other content strands. Concepts: Form (measurement, representation) Statement of Inquiry: Collecting and representing data allows us to investigate varied aspects of identity and relationships. Inquiry Questions: <u>Factual:</u> How can we represent statistical data? <u>Conceptual:</u> How do we decide which statistical measure or data display best represents a data set? How might statistics be manipulated to sway opinions? What is the purpose of statistics? Are you an outlier? <u>Debatable:</u> Can statistical measures and data displays tell the whole story? Assessment Criteria: Di, ii, iii, iv, v IB Learner: Reflective, Inquirers ATL Skills: <u>Critical Thinking</u>- Interpret data. Formulate factual, topical conceptual and debatable questions.</p>	<p>Dance for a Cause Global Context: Scientific and Technical Innovation Theme Explorations: Opportunity. Risk. Concepts: Logic (justification, quantity) Statement of Inquiry: We can use logic to justify quantity when making decisions involving opportunity and risk. Inquiry Questions: <u>Factual:</u> How do we express quantities? What forms can we use to visualize proportions/parts? How do you know which operation to choose when solving real-life problems? <u>Conceptual:</u> Does order matter? Can you ever have less than nothing? How do we divide something that was already divided? Do different forms lead to different solutions? <u>Debatable:</u> Is fairness always equal? Are events/dances at school important enough to justify the financial risks, consequences, and responsibilities? Assessment Criteria: Ai, ii, iii. Ci, ii, iii, iv. Di, ii, iii, iv, v. IB Learner: Thinkers ATL Skills: <u>Organization</u> - Use appropriate strategies for organizing complex information. <u>Critical Thinking</u> - Gather and organize relevant information to formulate an argument</p>	<p>Expressions, Equations and Inequalities Global Context: Scientific and Technical Innovation Theme Explorations: Mathematical puzzles. Principles. Discoveries. Concepts: Logic (generalization, model, pattern) Statement of Inquiry: Recognizing patterns enables us to logically generalize rules. Inquiry Questions: <u>Factual:</u> How can we use mathematical structure to simplify and solve expressions, equations, and inequalities? <u>Conceptual:</u> How can we investigate the relationships between models, patterns, expressions, and graphs? <u>Debatable:</u> Can a pattern lead to more than one expression? Assessment Criteria: Ai,ii,iii. Bi,ii, iii. Ci,ii,iii,iv. IB Learner: Communicators ATL Skills: <u>Communication</u>- Use and interpret a range of discipline-specific terms and symbols. <u>Critical Thinking</u>- Analyse and evaluating issues and ideas; draw reasonable conclusions and generalizations, and; test them</p>
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Geometry

Global Context: Orientation in Space & Time

Theme Explorations: Scale. Duration. Frequency & variability.

Concepts: Form (measurement, model, space)

Statement of Inquiry: Understanding form through the use of models helps us to design spaces in the real world

Inquiry Questions:

Factual: How do we use formulas to understand area and volume?

Conceptual: How can we use models to demonstrate two and three-dimensional forms?

Debatable: Do the dimensions of an object make a difference in the usefulness of the form?

Assessment Criteria: Ai, ii, iii, iv. Di, ii, iii, iv, v.

IB Learner:

ATL Skills: Organization- Plan short- & long-term assignments; meet deadlines. Use appropriate strategies for organizing complex information. Thinking- Analyse complex concepts & projects into their constituent parts; synthesise them to create new understanding. Propose and evaluate a variety of solutions

Is Fairness Always Equal?

Global Context:

Theme Explorations:

Concepts: Form (justification, system, model)

Statement of Inquiry: Making fair judgments is easier if we understand a variety of numeric systems and forms.

Inquiry Questions:

Factual: How do we express quantities? What forms can we use to visualize proportions/parts?

Conceptual: How are operations with rational numbers related to operations with whole numbers? Does order matter? Can you ever have less than nothing?

Debatable: Is there one best strategy for performing operations on whole numbers, fractions, and decimals? Is fairness always equal? Are real-life numbers commonly whole numbers?

Assessment Criteria:

Theme Explorations: Systems, models, methods; products, processes and solutions.

IB Learner:

ATL Skills: Analysing and evaluating issues and ideas. Evaluate evidence and arguments. Propose and evaluate a variety of solutions.

Gardens and Cubes

Global Context: Globalization & Sustainability

Theme Explorations: Urban planning. Strategy and infrastructure.

Concepts: Form (representation, space)

Statement of Inquiry: Understanding form enables us to plan and represent sustainable community spaces.

Inquiry Questions:

Factual: How can we use the formulas we know to solve new problems?

Conceptual: How can we derive formulas to solve real-world problems?

Debatable: Is dividing a resource equally the same as sharing it equitably?

Assessment Criteria: Di, ii, iii, iv, v

IB Learner: Knowledgeable

ATL Skills: Communication- Understand and use mathematical notation. Transfer Thinking- Apply skills and knowledge in unfamiliar situations.

GRADE 7 Mathematics (Last updated Feb. 2020)

Joe Michell School

Money Matters

Global Context: Personal & cultural expression

Theme Explorations: Practice and competency

Key & Related Concepts: Form (quantity, Representation)

Statement of Inquiry: We can practice representing quantities in different forms to increase competency and understanding.

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria: Ai, ii, iii. Ci, ii, iii, iv, v. Di, ii, iii, iv, v.

IB Learner:

ATL Skills:

Equations and Inequalities

Global Context: Scientific & technical innovation

Theme Explorations: Models

Key & Related Concepts: Logic (generalization)

Statement of Inquiry: Logic can justify generalizations if we find patterns in models of structures.

Inquiry Questions:

Factual: What are “like terms” and how do we collect them? How do I turn a table into a graph?

Conceptual: How do I find patterns?

Debatable: Do all letters grow linearly?

Assessment Criteria: Ai, ii, iii. Bi, ii, iii. Ci, ii, iii, iv, v.

IB Learner: Communicators

ATL Skills: Communication- Reading, writing and using language to gather and communicate information. Organize and depict information logically

Proportions and Percents

Global Context: Fairness & development

Theme Explorations: Imagining a hopeful future

Key & Related Concepts: Relationships (change)

Statement of Inquiry: In imagining a hopeful future, evaluating relationships helps us make decisions for positive change

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria: Ai, ii, iii, iv, v. Ci, ii, iii, iv, v. Di, ii, iii, iv, v.

IB Learner: Inquirers

ATL Skills: Research. Information Literacy: Finding, interpreting, judging and creating information. Collect, record and verify data. Process data and report results

Probability

Global Context: Personal & cultural expression

Theme Explorations: Ritual and play

Key & Related Concepts: Relationships (pattern, generalization)

Statement of Inquiry: Patterns found in relationships can be generalized to help us make predictions for personal gain.

Inquiry Questions:

Factual: How do we know what to expect?

Conceptual: Are all probabilities created equal?

Debatable: Is probability just for fun?

Assessment Criteria: Ci, ii, iii, iv, v. Di, ii, iii, iv, v.

IB Learner:

ATL Skills: Research. Information literacy skills: Collect, record and verify data. Process data and report results

How Do We Measure Up?

Global Context: Globalization & Sustainability

Theme Explorations: Scarcity

Key & Related Concepts: Form (space)

Statement of Inquiry: Measurement is expressed in various forms to communicate the space around or within an object.

Inquiry Questions:

Factual: What is the difference between area and perimeter?

Conceptual: How can you describe a shape? How are circles different from a polygon?

Debatable: Can everything be broken down into a few basic shapes?

Assessment Criteria: Bi, ii, iii. Ci, ii, iii, iv, v.

IB Learner: Knowledgeable

ATL Skills:

What is mathematics?

- ◆ a study of patterns and relationships
- ◆ a way of thinking
- ◆ an art
- ◆ a language
- ◆ a tool



GRADE 7 Extended Mathematics (Last updated Feb. 2020)

Joe Michell School

Transformations

Global Context: Personal & cultural expression

Theme Explorations: Beauty

Key & Related Concepts: Form (pattern, system)

Statement of Inquiry: Patterns reveal beauty in the form of a system.

Inquiry Questions:

Factual: How can we prove figures are similar? What does it mean to tessellate a plane? How can we transform a polygon by translation or rotation?

Conceptual: What determines which polygons will tessellate a plane? How do we create dilation, distortion, and translation?

Debatable: Is mathematics beautiful? What makes tessellations beautiful?

Assessment Criteria: Ci, ii, iii, iv, v

IB Learner: Open-minded

ATL Skills: Communication: Use and interpret a range of discipline-specific terms and symbols. Organize and depict information logically

Equations and Inequalities

Global Context: Scientific & technical innovation

Theme Explorations: Processes and solutions

Key & Related Concepts: Logic (model, quantity)

Statement of Inquiry: We can use equations and inequalities to model real-life situations, and apply logic to solve for unknown quantities.

Inquiry Questions:

Factual: How can we use mathematical structure to simplify and solve expressions, equations, and inequalities?

Conceptual: How can we model real-life situations using equations and inequalities?

Debatable: Can a system be described by more than one equation?

Assessment Criteria: Ai, ii, iii. Di, ii, iii.

IB Learner: Knowledgeable

ATL Skills: Critical thinking: Practise observing carefully in order to recognise problems. Test generalizations and conclusions

Angles and Triangles

Global Context: Scientific & technical innovation

Theme Explorations:

Key & Related Concepts: Relationships (model, representation)

Statement of Inquiry: We can use models to represent relationships and solve real-life problems.

Inquiry Questions:

Factual: What is a model?

Conceptual: Why is it useful to make a model? How can we use models to represent a real-life problem?

Debatable: Will we ever use this in real life?

Assessment Criteria: Ai, ii, iii. Bi, ii, iii.

IB Learner: Communicators

ATL Skills: Communication: Use and interpret a range of discipline-specific terms and symbols.

Critical thinking: Draw reasonable conclusions and generalizations. Test generalizations and conclusions.

<p style="text-align: center;">Graphing</p> <p>Global Context: Fairness & development</p> <p>Theme Explorations: Imagining a hopeful future</p> <p>Key & Related Concepts: Relationships (system)</p> <p>Statement of Inquiry: Graphing reveals relationships between systems, allowing us to solve problems to create a hopeful future.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What is a system?</p> <p><u>Conceptual:</u> How can graphing equations help us to solve problems and create a hopeful future? Can every real-life situation be graphed as an equation or system of equations?</p> <p><u>Debatable:</u> What is the most efficient solution strategy?</p> <p>Assessment Criteria: Ai, ii, iii. Bi, ii, iii. Ci, ii, iii, iv, v. Di, ii, iii, iv, v.</p> <p>IB Learner: Caring, Thinkers</p> <p>ATL Skills: <u>Reflection:</u> Keep a journal to record reflections</p> <p><u>Critical thinking:</u> Gather and organize relevant information to formulate an argument. Interpret data.</p>	<p style="text-align: center;">Eureka!!!!</p> <p>Global Context: Scientific & technical innovation</p> <p>Theme Explorations: Models, methods.</p> <p>Key & Related Concepts: Form (space, model)</p> <p>Statement of Inquiry: Models allow us to discover new methods for measuring form and space.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> Pi: What's it for, anyway?</p> <p><u>Conceptual:</u> What is meant by “form” and “space?”</p> <p><u>Debatable:</u> Is there one best method for measuring space?</p> <p>Assessment Criteria: Ai, ii, iii. Di, ii, iii, iv, v.</p> <p>IB Learner: Knowledgeable</p> <p>ATL Skills: <u>Critical thinking:</u> Practise observing carefully in order to recognise problems. Propose and evaluate a variety of solutions.</p>	<p style="text-align: center;">Let's Make a Deal</p> <p>Global Context: Scientific & technical innovation</p> <p>Theme Explorations: Risk.</p> <p>Key & Related Concepts: Logic (system, model)</p> <p>Statement of Inquiry: Probability models and simulations empower us to logically evaluate risk in complex systems.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> How can we find the probability of an event?</p> <p><u>Conceptual:</u> How can we use probabilities to make predictions and assess risk?</p> <p><u>Debatable:</u> Are factual surveys always truthful?</p> <p>Assessment Criteria: Di, ii, iii, iv, v.</p> <p>IB Learner: Knowledgeable</p> <p>ATL Skills: <u>Critical thinking:</u> Evaluate and manage risk. Use models and simulations to explore complex systems and issues</p>
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Can Mathematics Be Beautiful?

Global Context: Personal & Cultural Expression

Theme Explorations: Beauty

Key & Related Concepts: Relationships (equivalence)

Statement of Inquiry: In many cultures, arguments about what is perceived as beautiful can be justified by a mathematical relationship between equivalent images.

Inquiry Questions:

Factual: What are the different types of transformation?

Conceptual: What is mathematical about mirrors? How many ways can you rotate a figure? What qualifies as “similar”?

Debatable: Can all patterns be described by math? Is a tessellation truly math?

Assessment Criteria: Ai, ii, iii. Bi, ii, iii.

IB Learner: Reflective

ATL Skills: Thinking: Analyzing and evaluating issues and ideas. Draw reasonable conclusions and generalizations. Test generalizations and conclusions.

Equations and Triangles

Global Context: Scientific & Technical Innovation

Theme Explorations: Methods, processes, products, solutions

Key & Related Concepts: Logic (equivalence)

Statement of Inquiry: We communicate processes and solutions using logical sequences supported by justification and equivalence.

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria: Ai, ii, iii. Bi, ii, Cii, iii, iv.

IB Learner: Thinkers

ATL Skills: Transfer skills: Utilizing skills and knowledge in multiple contexts. Apply skills and knowledge in unfamiliar situations.

Linear Equations and Functions

Global Context: Scientific & Technical Innovation

Theme Explorations: Process, solutions, products

Key & Related Concepts: Logic (space, pattern)

Statement of Inquiry: Graphs can model relationships between data and help us use logic and pattern to find solutions.

Inquiry Questions:

Factual: What is a “function?” How can we represent functions?

Conceptual: How can tables be used to interpret solutions for real-world problems?

Debatable: Is there only one-way to solve a problem?

Assessment Criteria: Ai, ii, iii

IB Learner: Reflective

ATL Skills: Self-management: Managing state of mind. Self-motivation. Practise analysing and attributing causes for failure. Reflection skills. (Re-)considering the process of learning. Thinking: Transfer skills. Apply skills and knowledge in unfamiliar situations.

World’s Greatest Burrito

Global Context: Globalization & Sustainability

Theme Explorations: Markets

Key & Related Concepts: Relationships (change, systems)

Statement of Inquiry: We can identify changes in systems and relationships to predict supply and demand in markets.

Inquiry Questions:

Factual: How can you solve a system of linear equations?

Conceptual: How do systems of linear equations model relationships between the variables?

Debatable: Is profit the only thing we should be looking at? Just because you make it should there be a market for it? Are professional athletes worth the price?

Assessment Criteria: Di, ii, iii, iv, v.

IB Learner:

ATL Skills: Transfer skills: Utilizing skills and knowledge in multiple contexts. Apply skills and knowledge in unfamiliar situations.

Watch
this
space...

(Another unit is in
development)

ALL YOU NEED IS

$$y = \frac{1}{x}$$

$$x^2 + y^2 = 9$$

$$y = |-2x|$$

$$x = -3|\sin y|$$



<p style="text-align: center;">Magic of Mathematics</p> <p>Global Context: Scientific & Technical Innovation Theme Explorations: Mathematical puzzles and discoveries Key & Related Concepts: Change (patterns, equivalence) Statement of Inquiry: We can discover mathematical principles behind number magic tricks. Inquiry Questions: <u>Factual:</u> Can you explain the process of solving equations? Can you justify why each step results in an equivalent equation? <u>Conceptual:</u> Have you ever watched a magician perform a number trick? Can you use algebra to explain how these types of tricks work? <u>Debatable:</u> Can all activities be described by mathematical equations? Assessment Criteria: Bi, ii, iii IB Learner: Thinkers ATL Skills: <u>Communication-</u> Organize and depict information logically. <u>Critical Thinking-</u> Draw reasonable conclusions and generalizations. Test generalizations and conclusions.</p>	<p style="text-align: center;">Inequalities</p> <p>Global Context: Orientation in Space & Time Theme Explorations: Scale, duration, frequency, variability Key & Related Concepts: Logic (quantity) Statement of Inquiry: We can logically determine and predict the outcomes required that will meet our needs. Inquiry Questions: <u>Factual:</u> How do we solve inequalities? <u>Conceptual:</u> How do we use inequalities in real life situations? <u>Debatable:</u> What are the electrical needs of an “ideal” home? Assessment Criteria: Di, ii, iii, iv, v IB Learner: Reflective ATL Skills: Self-management: reflection. Thinking: analyze and evaluate issues and ideas; propose and evaluate a variety of solutions.</p>	<p style="text-align: center;">Graphing & Writing Linear Functions</p> <p>Global Context: Scientific & Technical Innovation Theme Explorations: Models Key & Related Concepts: Relationships (representation, model) Statement of Inquiry: Relationships can be represented using many different models, and moving between models allows us to find the one that best fits a given context. Inquiry Questions: <u>Factual:</u> What are the forms of linear equations? How do you graph linear functions? <u>Conceptual:</u> When do you use each form? In what type of context would you use each of the different graphing processes? <u>Debatable:</u> With so many ways to represent a linear relationship, where do you start? Assessment Criteria: IB Learner: ATL Skills:</p>
<p style="text-align: center;">Mopeds in Oakland</p> <p>Global Context: Globalization & Sustainability Theme Explorations: Data-driven decision-making Key & Related Concepts: Systems (pattern) Statement of Inquiry: Identifying patterns in systems can provide data to make wise choices for sustainable urban transportation. Inquiry Questions: <u>Factual:</u> How can systems of equations and inequalities be solved? <u>Conceptual:</u> How do we use systems of equations to solve real-life problems? <u>Debatable:</u> Should the data provided by systems analysis be the only factor used for decision-making? Assessment Criteria: Di, ii, iii, iv, v IB Learner: Communicators ATL Skills: <u>Thinking:</u> Analyzing and evaluating systems and ideas. Use models and simulations to explore complex systems and issues.</p>	<p style="text-align: center;">Statistics and Data Analysis</p> <p>Global Context: Orientation in Space & Time Theme Explorations: Scale, duration frequency, variability Key & Related Concepts: Logic (generalization, model) Statement of Inquiry: We can model data in different ways to logically come to conclusions and generalizations. Inquiry Questions: <u>Factual:</u> How do you make a box-and whisker plot? <u>Conceptual:</u> Can we model data in different ways and still come to the same conclusions? <u>Debatable:</u> How do we know if a survey has a sample size sufficient to draw conclusions? Assessment Criteria: Ci, ii, iii, iv, v IB Learner: Thinkers ATL Skills: <u>Communication:</u> Make inferences and draw conclusions. Organize and depict information logically</p>	<p style="text-align: center;">Exponentials/Quadratic Functions</p> <p>Global Context: Globalization & Sustainability Theme Explorations: Data-driven decision-making Key & Related Concepts: Logic (models) Statement of Inquiry: We model data to help us reach logical conclusions. Inquiry Questions: <u>Factual:</u> <u>Conceptual:</u> <u>Debatable:</u> Assessment Criteria: Exponentials: Ai, ii, iii. Ci, ii, iii, iv, v. Di, ii, iii, iv, v. Quadratic Functions: Ai, ii, iii. Bi, ii, iii. IB Learner: ATL Skills:</p>

<p>Exploring Self-Awareness Global Context: Identities & Relationships Theme Explorations: Personal efficacy and agency. Resilience. Key & Related Concepts: Development (muscle memory, refinement) Statement of Inquiry: Refinement of performance develops through practice and resilience. Inquiry Questions: <u>Factual:</u> What does refinement mean? What does resilience mean? <u>Conceptual:</u> How is practice related to muscle memory? <u>Debatable:</u> Does practice make perfect? If yes, how? If not, why not? Assessment Criteria: Bi, ii. Di, ii, iii. IB Learner: Reflective ATL Skills: <u>Self-Management</u>- Practice strategies to: develop focus and concentration. Resilience: bounce back after adversity, mistakes and failures; fail well, and; deal with disappointment and unmet expectations.</p>	<p>International Games Global Context: Personal & Cultural Expression Theme Explorations: Social constructions of reality. Belief systems. Ritual and play Key & Related Concepts: Relationships (perspectives, interaction) Statement of Inquiry: We can learn to relate with cultures' perspectives through interacting with their sports and games. Inquiry Questions: <u>Factual:</u> What are some examples of games from different cultures? <u>Conceptual:</u> Why do some games catch-on in America, and others don't? <u>Debatable:</u> Does international competition serve a purpose for society? If so, what is it? If not, why do we spend so much time/money on these pursuits? Assessment Criteria: Ci, ii, iii IB Learner: ATL Skills: <u>Communication</u>-Exchanging thoughts, messages and information effectively through interaction <u>Collaboration</u>- Working effectively with others.</p>	<p>Line Dance Global Context: Identities & Relationships Theme Explorations: Physical, psychological and social development Key & Related Concepts: Relationships (function, interaction) Statement of Inquiry: Relationships and connections between humans allow us to function and interact effectively. Inquiry Questions: <u>Factual:</u> <u>Conceptual:</u> <u>Debatable:</u> Assessment Criteria: Ci, ii, iii IB Learner: ATL Skills: <u>Communication</u>- Give and receive meaningful feedback; Interpret and use effectively modes of non-verbal communication. <u>Collaboration</u>- Working effectively with others; Help others to succeed; Take responsibility for one's own actions</p>
<p>Communication Through Team Games Global Context: Orientation in Space & Time Theme Explorations: Peoples. Boundaries. Exchange & interaction. Key & Related Concepts: Communication (space) Statement of Inquiry: The effectiveness of a team requires communication across dynamic environments. Inquiry Questions: <u>Factual:</u> What are the strategies we can use to better communicate as a team? <u>Conceptual:</u> How do we help teammates be successful in their performance? How do we create open space and opportunities for the team to succeed? How do we communicate intentions to others in a dynamic environment? Why is this important? <u>Debatable:</u> Does the better team always win? The team with better skills? The team with the most experience? The team that is most fit? The team that communicates better? The team with the most heart? Assessment Criteria: Di, ii, iii. IB Learner: ATL Skills: <u>Communication</u>: Give and receive meaningful feedback; interpret and use effectively modes of non-verbal communication. <u>Social</u>: Help others to succeed.</p>	<p>Striking Global Context: Scientific & Technical Innovation Theme Explorations: the interaction between people and the natural world; how humans use their understanding of scientific principles Key & Related Concepts: Change (energy, movement) Statement of Inquiry: Energy transferred to objects through movement varies depending on the action, direction, and force applied. Inquiry Questions: <u>Factual:</u> What are the different ways to strike an object to achieve the desired result? <u>Conceptual:</u> How does the movement of a striking instrument affect the direction or flight of the object struck? <u>Debatable:</u> What's more important: accuracy or force? Assessment Criteria: Ci, ii, iii. IB Learner: ATL Skills:</p>	<p>Invasion Sports Global Context: Orientation in Space & Time Theme Explorations: Peoples. Boundaries. Exchange and interaction. Key & Related Concepts: Change (environment, space) Statement of Inquiry: Changes in movement can create open space in your environment. Inquiry Questions: <u>Factual:</u> What are some changes in movement that you can use to create open space? <u>Conceptual:</u> How do changes in your movement help your team score and defend? <u>Debatable:</u> Do patterns of movement in open space need to change even though the end goal remains the same? Why or why not? Assessment Criteria: Ai, ii, iii. Bi, ii. Ci. IB Learner: ATL Skills:</p>

<p>Team Sports: Volleyball & Soccer Global Context: Orientation in Space & Time Theme Explorations: Peoples. Boundaries. Exchange & interaction. Key & Related Concepts: Communication (adaptation, environment, space) Statement of Inquiry: In a dynamic environment teammates must adapt and communicate to be more successful Inquiry Questions: <u>Factual:</u> What are some strategies that we can use to better communicate as a team? <u>Conceptual:</u> How can communication help teammates be more successful in their performance? <u>Debatable:</u> Does the team that communicates the best always win? Why or why not? Assessment Criteria: IB Learner: Communicators ATL Skills: <u>Communication</u>-Use a variety of speaking techniques with a variety of audiences. Interpret and use effectively modes of non-verbal communication. <u>Social</u>- Help others to succeed. Take responsibility for one's own actions.</p>	<p>Self-Improvement & Individual Development Global Context: Identities & Relationships Theme Explorations: Personal efficacy and agency. Attitudes. Motivation. Independence. Key & Related Concepts: Development (balance, movement) Statement of Inquiry: Practicing patterns of movement helps develop self-awareness, perseverance, balance, and independence. Inquiry Questions: <u>Factual:</u> What are the movement patterns of jump rope? What are the movement patterns of juggling? <u>Conceptual:</u> How does style of movement affect performance? <u>Debatable:</u> Is one style of movement better than the others? Assessment Criteria: Bi. Cii. Diii. IB Learner: Open-minded ATL Skills: <u>Self-management</u>-Demonstrate perseverance and persistence. Practice: analyzing and attributing causes for failure; self-motivation; positive thinking, and; resilience.</p>	<p>Fitness - What Choice Do I Have? Global Context: Identities & Relationships Theme Explorations: Personal efficacy and agency. Transitions. Health and well-being. Lifestyle choices. Key & Related Concepts: Change (balance, choice) Statement of Inquiry: Changes in lifestyle choices affect lifelong health. Inquiry Questions: <u>Factual:</u> What kinds of exercises improve cardiovascular health? Lower body strength? Upper body strength? Abdominal endurance? <u>Conceptual:</u> How big of a change do you have to make to have an impact on your overall health? <u>Debatable:</u> By just following a 2 week fitness plan, are you improving your overall health? Assessment Criteria: Bi. Ci. Cii, iii. IB Learner: Thinkers. Balanced. Reflective. ATL Skills: <u>Organization</u>- Set goals that are realistic. Plan strategies and take action to achieve personal goals. <u>Reflection</u>- Identify strengths and weaknesses (self-assessment). Keep a journal to record reflections. <u>Affective</u>- Demonstrate persistence and perseverance.</p>
<p>International Games Global Context: Fairness & Development Theme Explorations: Fair play Key & Related Concepts: Relationships (interaction, perspective) Statement of Inquiry: Officiating sports and games builds character and encourages understanding of fair play. Inquiry Questions: <u>Factual:</u> What are the rules of ringo and bocce? <u>Conceptual:</u> What makes a person a good referee? <u>Debatable:</u> What influence can referees have on the outcome of the game? Assessment Criteria: Di, ii, iii IB Learner: ATL Skills:</p>	<p>Multicultural Dance Global Context: Personal & Cultural Expression Theme Explorations: Expressing ideas through movement Key & Related Concepts: Communication (function, interaction, movement, refinement) Statement of Inquiry: Movement functions as a form of communication Inquiry Questions: <u>Factual:</u> What are the patterns of movement? <u>Conceptual:</u> What are the origins or functions of dances? <u>Debatable:</u> Do cultural dances allow for personal expression? Assessment Criteria: Ci, ii, iii; Diii IB Learner: Communicator ATL Skills: <u>Communication</u>-Give and receive meaningful feedback; Use intercultural understanding to interpret communication; <u>Social:</u> Manage and resolve conflict and work collaboratively in teams; Listen actively to other perspectives and ideas; Encourage others to contribute; Exercise leadership and take on a variety of roles within groups .</p>	<p>Golf Global Context: Scientific & Technical Innovation Theme Explorations: Methods, Adaptation Key & Related Concepts: Change (energy, movement) Statement of Inquiry: Energy transferred to objects through movement varies depending on the action, direction and force applied. Inquiry Questions: <u>Factual:</u> What are the different ways to strike an object to achieve a desired result? <u>Conceptual:</u> How does the movement of a striking instrument affect the direction or flight of the object struck? <u>Debatable:</u> What's more important, accuracy or force? Assessment Criteria: Ci, ii, iii IB Learner: ATL Skills: <u>Communication</u>-Exchanging <u>Collaboration</u>- Working effectively with others. contribute to social network.</p>

<p>Communication Through Team Sports Global Context: Orientation in Space & Time Theme Explorations: Peoples, Boundaries, Exchange & Interaction Key & Related Concepts: Communication (adaptation, environment, space) Statement of Inquiry: In a dynamic environment, teammates must communicate and adapt to be more successful Inquiry Questions: <u>Factual:</u> What are some strategies we can use to better communicate as a team? <u>Conceptual:</u> How can communication help teammates be more successful in their performance? <u>Debatable:</u> Does the team that communicates best always win? Assessment Criteria: IB Learner: Communicators ATL Skills: <u>Communication:</u> Use a variety of speaking techniques to communicate with a variety of audiences; Interpret and use effectively modes of non-verbal communication. <u>Social:</u> Take responsibility for one's own actions; Encourage others to contribute.</p>	<p>Self-Improvement and Individual Development Global Context: Identities & Relationships Theme Explorations: Personal efficacy & agency Key & Related Concepts: Development (balance, movement) Statement of Inquiry: Practicing patterns of movement helps develop self-awareness, perseverance, balance, and independence. Inquiry Questions: <u>Factual:</u> What are the movement patterns for jump rope? What is the movement pattern for juggling? <u>Conceptual:</u> How does the style of movement affect performance? <u>Debatable:</u> Is one style of movement better than the others? Assessment Criteria: Bi, ii; Ci, ii iii; Di, ii, iii IB Learner: ATL Skills: <u>Communication:</u> Give and receive meaningful feedback. <u>Self-Management:</u> Demonstrate persistence and perseverance; Practise analysing and attributing causes for failure; Practise "bouncing back" after mistakes and failures; Practise "failing well."</p>	<p>Fitness: What Choice Do I Have? Global Context: Identities & Relationships Theme Explorations: Health & well-being. Lifestyle choices. Key & Related Concepts: Change (balance, choice) Statement of Inquiry: Changes in lifestyle choices affect lifelong health. Inquiry Questions: <u>Factual:</u> What kinds of exercises improve cardiovascular health? Lower body strength? Upper body strength? Abdominal endurance? <u>Conceptual:</u> How big of a change do you have to make to have an impact on your overall health? <u>Debatable:</u> By just following a 2 week fitness plan, are you improving your overall health? Assessment Criteria: Bi, ii. Ci, ii, iii. Di, ii, iii. IB Learner: Reflective, Balanced, Thinkers ATL Skills: <u>Organization:</u> Set goals that are challenging and realistic; Plan strategies and take action to achieve personal and academic goals. <u>Reflection:</u> Identify strengths and weaknesses of personal learning strategies (self-assessment); Keep a journal to record reflections.</p>
<p>International Games Global Context: Fairness & Development Theme Explorations: Fair play Key & Related Concepts: Relationships (interactions, perspectives) Statement of Inquiry: Officiating sports and games builds character and encourages understanding of fair play. Inquiry Questions: <u>Factual:</u> What are the rules of ringo and bocce? <u>Conceptual:</u> What makes a person a good referee? <u>Debatable:</u> What influence can referees have on the outcome of the game? Assessment Criteria: Di, ii, iii IB Learner: ATL Skills:</p>	<p>Strategy Games Global Context: Orientation in Space & Time Theme Explorations: Constraints & adaptation Key & Related Concepts: Change (adaptation, choice, environment) Statement of Inquiry: Individuals and teams change strategies and tactics in response to stimuli from players and the environment. Inquiry Questions: <u>Factual:</u> What are some defensive strategies (for a strategy game)? What are some offensive strategies (for a strategy game)? <u>Conceptual:</u> What is the difference between a defensive and offensive strategy? <u>Debatable:</u> Do the strategies utilized in one strategy game follow the same pattern as those used in other games? Do environmental factors have the potential to shift an advantage in a strategy game? Assessment Criteria: Ci, ii, iii IB Learner: ATL Skills: <u>Communication:</u> Negotiate ideas and knowledge with peers and teachers; Read critically and for comprehension; Write for different purposes. <u>Social:</u> Give and receive meaningful feedback.</p>	<p>Square Dance Global Context: Identities & Relationships Theme Explorations: Competition & cooperation. Affiliation & leadership. Key & Related Concepts: Communication (interaction, movement, space) Statement of Inquiry: Communication is a necessary element when performing patterns of movement in groups. Inquiry Questions: <u>Factual:</u> What are the basic square dance movements? <u>Conceptual:</u> How do you bring different dance steps together to create a performance? <u>Debatable:</u> What makes one performance better than another? What's more important in communication: listening or speaking? Assessment Criteria: Bi. Ci, ii, iii. IB Learner: ATL Skills:</p>

<p align="center">Earth and Earth's Structure</p> <p>Global Context: Globalization & Sustainability</p> <p>Theme Explorations:</p> <p>Key & Related Concepts: Systems (evidence, movement)</p> <p>Statement of Inquiry: Scientists discern patterns and use them to construct systems with rules and conventions that help explain how the structure of the Earth works.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What has changed about Earth's surface over time?</p> <p><u>Conceptual:</u> How will Earth's surface continue to change in the future?</p> <p><u>Debatable:</u> How does evidence of past movement connect to future movement?</p> <p>Assessment Criteria: Ai. Biv.</p> <p>IB Learner: Thinkers</p> <p>ATL Skills: Communication: Interpret and use effectively modes of non-verbal communication. Social: Give and receive meaningful feedback. Research: Collect, record, verify data. Make informed choices about viewing experiences. Thinking: Practice observing carefully in order to recognize problems. Revise understanding based on new evidence. Make unexpected or unusual connections between ideas.</p>	<p align="center">Heat</p> <p>Global Context: Scientific & Technical Innovation</p> <p>Theme Explorations: The energy of life. The planetary ecosystem.</p> <p>Key & Related Concepts: Relationships (energy, function)</p> <p>Statement of Inquiry: Connections between energy and function affect the planetary ecosystem as the energy of life.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> How does the Sun's energy affect the planetary ecosystem?</p> <p><u>Conceptual:</u></p> <p><u>Debatable:</u></p> <p>Assessment Criteria:</p> <p>IB Learner: Inquirers</p> <p>ATL Skills:</p>	<p align="center">California Water Project</p> <p>Global Context: Globalization & Sustainability</p> <p>Theme Explorations: Human impact on the environment</p> <p>Key & Related Concepts: Global interaction (environment)</p> <p>Statement of Inquiry: Connections between individuals and their communities can increase understanding of environmental impact around the globe.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What is the earth's atmosphere and its function? What is water ecology?</p> <p><u>Conceptual:</u> How is weather different from climate? How do individuals impact the water environment? How can individuals connect with their community to increase understanding of environmental impacts?</p> <p><u>Debatable:</u> How do game designers develop clear instructions and unambiguous questions?</p> <p>Assessment Criteria: Ai. Bi, iii. Di, ii.</p> <p>IB Learner: knowledgeable, communicators, risk takers</p> <p>ATL Skills: Communicating: Share ideas with multiple audiences using a variety of digital environments and media.</p> <p>Thinking: Inquire in different contexts to gain a different perspective.</p>
<p align="center">Cells, part 1</p> <p>Global Context: Scientific & Technical Innovation</p> <p>Theme Explorations: the biological revolution</p> <p>Key & Related Concepts: Connections (models)</p> <p>Statement of Inquiry: Models can help us understand the relationships among biological systems within the human body.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u></p> <p><u>Conceptual:</u></p> <p><u>Debatable:</u></p> <p>Assessment Criteria:</p> <p>Traits:</p> <p>ATL Skills:</p>	<p align="center">Cells part 2: Genetics</p> <p>Global Context: Scientific & Technical Innovation</p> <p>Theme Explorations: Adaptation</p> <p>Key & Related Concepts: Connection (environment, models, consequences)</p> <p>Statement of Inquiry: Environmental factors have consequences to cell reproduction</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What are the plant and animal cell organelles? What are their functions?</p> <p><u>Conceptual:</u> Does keeping cells healthy make for a healthy living thing?</p> <p><u>Debatable:</u> How much do chemicals affect cell reproduction?</p> <p>Assessment Criteria:</p> <p>Traits:</p> <p>ATL Skills:</p>	<p align="center">Climate/Biomes</p> <p>Global Context: Globalization & Sustainability</p> <p>Theme Explorations: sustainable development</p> <p>Key & Related Concepts: Systems (environment, evidence, climate change)</p> <p>Statement of Inquiry: Evidence of change in global ecosystems can indicate a need for sustainable development.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u></p> <p><u>Conceptual:</u> How can the loss of one species affect an entire ecosystem?</p> <p><u>Debatable:</u></p> <p>Assessment Criteria: Aiii; Bii; Cii; Diii</p> <p>Traits: Inquirers, Communicators, Risk-takers</p> <p>ATL Skills: Communication- Use a variety of speaking techniques to communicate with a variety of audiences. Use a variety of media to communicate with a range of audiences. Organize and depict information logically.</p>

<p>Dub Nation Rehabilitation</p> <p>Global Context: Scientific & Technical Innovation</p> <p>Theme Explorations: products, models, processes & solutions</p> <p>Key & Related Concepts: Change (evidence, patterns)</p> <p>Statement of Inquiry: Pioneering discoveries can challenge conventional wisdom through patterns and models, and open pathways toward deeper understanding.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> How can it be known that mass is conserved?</p> <p><u>Conceptual:</u> How do chemical reactions influence products that impact our lives? Over decades, how has the periodic table evolved?</p> <p><u>Debatable:</u> How do we weigh the positive and negative impacts of products invented through chemical engineering?</p> <p>Assessment Criteria: Ci, ii, iii, iv, v. Di, ii, iii</p> <p>Traits: Inquirers, Communicators</p> <p>ATL Skills: <u>Research</u>- Information literacy skills. Media literacy skills.</p>	<p>Why Science?</p> <p>Global Context: Scientific & Technical Innovation</p> <p>Theme Explorations: the scientific method</p> <p>Key & Related Concepts: Systems (evidence, form, patterns)</p> <p>Statement of Inquiry: The Scientific Method can be used to inquire about systems in our world.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What is the scientific method?</p> <p><u>Conceptual:</u> How can we use it to inquire about systems around us?</p> <p><u>Debatable:</u> Should the US adopt the metric system?</p> <p>Assessment Criteria: Ai, ii, iii</p> <p>Traits: Inquirers, Thinkers</p> <p>ATL Skills: <u>Research</u>- Information literacy skills.</p>	<p>Coral Reefs Under Threat</p> <p>Global Context: Globalization & Sustainability</p> <p>Theme Explorations: human impact on the environment</p> <p>Key & Related Concepts: Global Interaction (environment, consequences)</p> <p>Statement of Inquiry: The decline in global communities results from deterioration of the balance between individuals and their natural environments due to human activities.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What are coral reefs, their characteristics including animals and habitats, and where are they located around the globe?</p> <p><u>Conceptual:</u> What are some threats to coral reefs and what are their impacts?</p> <p><u>Debatable:</u> How can we reduce human impact on coral reefs and negative consequences to the environment?</p> <p>Assessment Criteria:</p> <p>Traits:</p> <p>ATL Skills:</p>
<p>Biodome Catastrophe!</p> <p>Global Context: Globalization & Sustainability</p> <p>Theme Explorations: diversity, interconnection</p> <p>Key & Related Concepts: Relationships (interactions, evidence)</p> <p>Statement of Inquiry: How do chemical reactions and individual interactions support life on earth?</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What is photosynthesis? What is respiration?</p> <p><u>Conceptual:</u> How do living organisms cycle energy to create different landscapes and provide resources? How do interactions of individual organisms affect ecosystems?</p> <p><u>Debatable:</u> How do we reduce our human impact on natural cycles of living organisms that provide us with a viable environment?</p> <p>Assessment Criteria: Bi, ii, iii, iv. Ci, ii, iii, iv, v.</p> <p>Traits: Reflective, Thinkers</p> <p>ATL Skills:</p>	<p>Make a Splash!</p> <p>Global Context: Orientation in Space & Time</p> <p>Theme Explorations: natural and human landscapes and resources</p> <p>Key & Related Concepts: Relationships (evidence, models)</p> <p>Statement of Inquiry: Identifying properties of natural substances help create sustainable resources for humans within their own environments.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What substances are pure? What properties of water makes it invaluable to life?</p> <p><u>Conceptual:</u> How can properties of water and its surrounding area be used to create resources for populations around them?</p> <p><u>Debatable:</u> Is access to water a human right? Who is responsible to ensure that every human being has access to clean water? What is our responsibility?</p> <p>Assessment Criteria: Ai, ii, iii. Bi, ii, iii, iv. Di.</p> <p>Traits: Reflective, Thinkers</p> <p>ATL Skills: <u>Self-management</u>- Reflection. <u>Thinking</u>: Create novel solutions to authentic problems</p>	<p>Staying Healthy</p> <p>Global Context: Identities & Relationships</p> <p>Theme Explorations: identity formation, self-esteem, status, roles and role models</p> <p>Key & Related Concepts: Relationships (balance, interaction)</p> <p>Statement of Inquiry: Balanced interactions within ourselves and among others lead to healthy relationships which helps identity formation and increased self-esteem among adolescents.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What are the physical and emotional changes during adolescence, and which human body systems are affected?</p> <p><u>Conceptual:</u> What are some factors important in healthy adolescent development?</p> <p><u>Debatable:</u> How do we establish healthy relationships and increase self-esteem in our everyday lives?</p> <p>Assessment Criteria:</p> <p>Traits:</p> <p>ATL Skills:</p>

Space

Global Context: Scientific & Technical Innovation

Theme Explorations: consequences, risks

Key & Related Concepts: Systems (models, interaction)

Statement of Inquiry: Models can help explain systems, interactions, risks and consequences.

Inquiry Questions:

Factual: How do models help explain complex systems and interactions?

Conceptual: How is physics evident in interactions in the solar system?

Debatable: Does space travel, human and non-human, have benefits for the Earth's environment in spite of the risks?

Assessment Criteria: Ai, ii, iii. Di, ii.

Traits: Principled, Inquirers

ATL Skills: Communication- Collaborate with peers using a variety of media and digital environments. Research- Access information to be informed/inform others. Thinking- Use models and simulations/to explore complex systems



Genetics/Evolution/Natural Selection

Global Context: Orientation in Space & Time

Theme Explorations: evolution

Key & Related Concepts: Change (transformation, environment)

Statement of Inquiry: The environment and its organisms will continually transform based on environmental and human impact.

Inquiry Questions:

Factual:

Conceptual:

Debatable: What causes change to populations and ecosystems over time?

Assessment Criteria: Aiii. Ciii. Di, ii, iii, iv.

Traits: Inquirers, Communicators

ATL Skills:

Physics, Part 1

Global Context: Scientific & Technical Innovation

Theme Explorations: models

Key & Related Concepts: Form (energy, balance)

Statement of Inquiry: Structural improvements can be modeled using understanding of balance and energy.

Inquiry Questions:

Factual: What elements of physics are involved in forward motion?

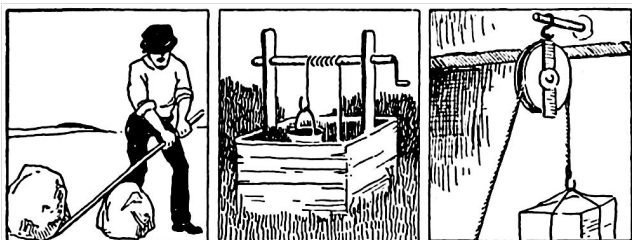
Conceptual: How does bridge design keep people safe?

Debatable: Is there a high level of safety in wheelchair ramps around the world?

Assessment Criteria: Bi, ii, iii, iv. Di.

Traits: Caring

ATL Skills: Self-management- Mindfulness, perseverance, emotional management,



Lever

Wheel and axle

Pulley



Inclined plane

Wedge

Screw

Physics, Part Two

Global Context: Scientific & Technical Innovation

Theme Explorations: models, methods

Key & Related Concepts: Systems (energy)

Statement of Inquiry: The Scientific Method allows us to investigate the form and function of patterns observed in natural systems.

Inquiry Questions:

Factual: How do scientists use the scientific method?

Conceptual: Why is conservation of matter so important in physics?

Debatable: Should scientific inquiry be pursued when a possible outcome might prove harmful to society or our world?

Assessment Criteria: Aii. Biv. Cv. Di.

Traits: Communicators. Risk takers

ATL Skills: Communication- Collaborate with peers using a variety of media and digital environments. Social- Help

	self-motivation.	others to succeed
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¿Quiénes forman mi familia?

Global Context: Identities & Relationships

Theme Explorations: relaciones

Key & Related Concepts: Connections
(structure, word choice)

Statement of Inquiry: Las conexiones que creamos y las interacciones que tenemos en diversos contextos permiten establecer diferentes tipos de relaciones.

Inquiry Questions:

Factual: ¿Quiénes forman tu familia? ¿Qué actitudes y valores son característicos de una familia?

Conceptual: ¿Cómo se integran las familias en diferentes países? ¿De qué formas podemos utilizar la lengua para referirnos a diferentes miembros de la familia?

Debatable: ¿Existe únicamente un solo tipo de familia?

Assessment Criteria: Ai, ii. Bi. Ci, ii, iii, iv. Di.

Traits: Communicators

ATL Skills: Communication- Negotiate ideas and knowledge with peers and teachers. Reflection- What did I learn today? What don't I yet understand?

Lenguaje en el mundo

Global Context: Orientation in Space & Time

Theme Explorations: peoples, boundaries, exchange and interaction

Key & Related Concepts: Communication
(context, function)

Statement of Inquiry: Learning to speak Spanish makes communication more effective in diverse linguistic contexts, locally and globally.

Inquiry Questions:

Factual:

Conceptual: How does learning Spanish help us communicate locally and globally?

Debatable:

Assessment Criteria: Ci, ii, iii, iv. Di.

Traits:

ATL Skills: Communication- Use intercultural understanding to interpret communication

Los animales salvajes

Global Context: Scientific & Technical
Innovation

Theme Explorations: interactions between humans and animals (threats, hope)

Key & Related Concepts: Connections
(message)

Statement of Inquiry: Messages can be constructed to show the threats and hopes in human connections with animals.

Inquiry Questions:

Factual: What are the characteristics of the different classifications in animals? How do word order, agreement and syntax in Spanish help to construct an effective message?

Conceptual: How can we get people to care about things by carefully crafting messages?

Debatable: Does human activity inevitably endanger animals?

Assessment Criteria:

Traits:

ATL Skills: Research- Access information in order to be informed and inform others

El alfabeto español

Spanish411.net

a	ah	be	bay	ce	say	de	day	e	ay	efe	ay-fay
like the a in "father"		like the English b		before a or u like c in "cat"		like d in "bed" but soft		like the ay in "pay"		like the English f	
ge	hay	hache	ah-chay	i	ee	jota	ha-ta	ka	kah	ele	ay-lay
before a or u like g in "get"		always silent		like ee in "feet"		like the English h		like the English k		like the English l	
eme	ay-may	ene	ay-say	ñ	ay-nyay	o	oh	pe	pay	cu	koo
like the English m		like the English n		like the ny in "canyon"		like the e in "bet"		like the English p		like the English k	
ere	ay-ray	ese	ay-say	te	tay	u	oo	ve	vay	doble ve	do-blay vay
like the soft English r		like the English s		like the English t		like the ee in "good"		(almost no difference between b and v)		like the English w	
equis	ay-kees	griega	ee-gree-ay-ga	zeta	say-tah	che	chay	elle	ay-yay	sire	ay-say
like the English x		like the English y		like the English z		like the ch in "church"		like the y in "yes"		strongly rolled	
x		y		z		ch		ll		rr	

Language Has Life

Global Context: Personal & Cultural Expression
Theme Explorations: words carry meaning and culture

Key & Related Concepts: Culture (accent, context)

Statement of Inquiry: Words carry meaning and culture within them, and their meanings can change as culture changes.

Inquiry Questions:

Factual:

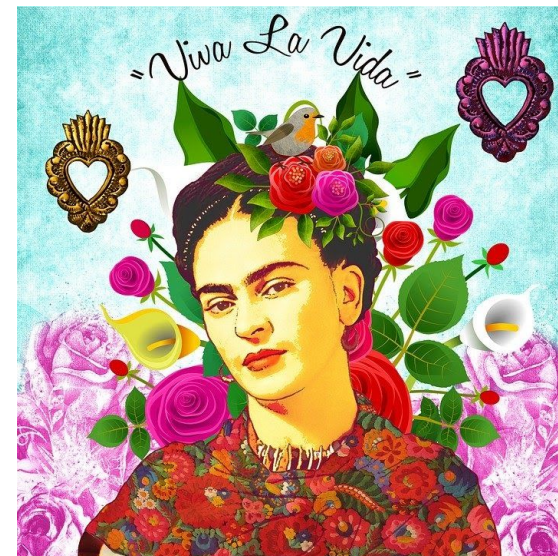
Conceptual:

Debatable:

Assessment Criteria: Ai, ii. Ci, ii, iii, iv. Di.

Traits:

ATL Skills: Critical Thinking- Consider ideas from multiple perspectives



Language Acquisition - Spanish 1B

(Last updated Feb. 2020)

Joe Michell School

World-class Athletes

Global Context: Fairness & Development

Theme Explorations: difference and inclusion

Key & Related Concepts: Communication (word choice)

Statement of Inquiry: Word choice affects communication about fairness and inclusion

Inquiry Questions:

Factual: When do we use present and progressive tenses?

Conceptual: How is the present progressive different in Spanish and English language/culture, context? What determines whether to use 'ser' or 'estar'?

Debatable: Do the Latin American nations have equal access to succeed in Olympic sports?

Assessment Criteria: Ai, ii, iii. Bi, ii, iii. Ci, ii, iii, iv. Di, ii, iii.

Traits: Open-minded

ATL Skills: Communication- Read a variety of sources for information and for pleasure. Organize and depict information logically

El medio ambiente

Global Context: Fairness & Development

Theme Explorations: civic responsibility

Key & Related Concepts: Connections (meaning, purpose, message)

Statement of Inquiry: Developing effective environmental initiatives involves using knowledge about the connections and relationships that humans have with nature.

Inquiry Questions:

Factual: What are the most serious problems affecting the environment?

Conceptual: What social attitudes and actions affect the environment?

Debatable: Are people who help with environmental initiatives genuinely altruistic?

Assessment Criteria: Ai, ii, iii.

Traits: Caring

ATL Skills: Communication- Use and interpret a range of discipline-specific terms and symbols. Use intercultural understanding to interpret communication.

¿Que haces en tu tiempo libre?

Global Context: Globalization & Sustainability

Theme Explorations: commonality, diversity, interconnection

Key & Related Concepts: Culture (context, meaning)

Statement of Inquiry: Meaning is dependent on culture and context and awareness of idioms.

Inquiry Questions:

Factual: When do we use 'jugar' rather than 'tocar'?


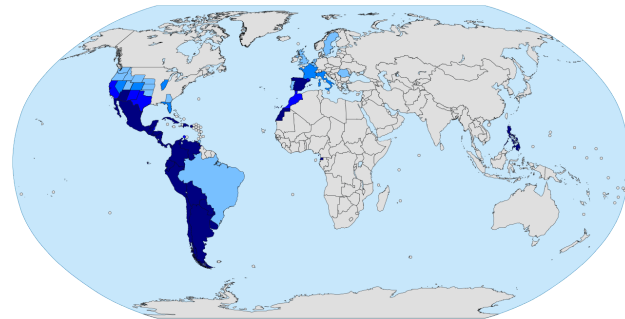
Conceptual: How can verb choice affect the meaning of a sentence?

Debatable: Can verbs adapt to new changes in a culture?

Assessment Criteria: Ai, ii, iii. Bi, ii, iii. Ci, ii, iii, iv. Di.

Traits:

ATL Skills: Communication- Use intercultural understanding to interpret communication

	<h2 style="text-align: center;">Vamos de compras</h2> <p>Global Context: Globalization & Sustainability Theme Explorations: commodities, commercialization, consumption Key & Related Concepts: Culture (function, purpose) Statement of Inquiry: Language allows us to understand how cultures' consumption of goods and services work in regional and global contexts Inquiry Questions: <u>Factual:</u> On what do you like to spend your money? What is the relationship between need, consumption, and the price of goods and services? <u>Conceptual:</u> How can we create a balanced life as consumers? <u>Debatable:</u> Is consumerism more common in developed countries? Is consumerism a problem? Assessment Criteria: Bi, ii, iii. Traits: ATL Skills:</p>	
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Language Acquisition - Spanish 1C

(Last updated Feb. 2020)

Joe Michell School

Día de los muertos

Global Context: Personal & Cultural Expression

Theme Explorations: rituals

Key & Related Concepts: Culture (audience, point of view)

Statement of Inquiry: Communal rituals communicate the beliefs of a culture.

Inquiry Questions:

Factual: What is a ritual? What is a culture? What are the beliefs embedded in Day of the Dead rituals?

Conceptual: How do rituals show a culture's point of view? What role does an audience play in a ritual?

Debatable: Should rituals evolve?

Assessment Criteria: Cii, iv. Di.

Traits: Open-minded

ATL Skills: Communication- Use and interpret a range of discipline-specific terms and symbols. Use intercultural understanding to interpret communication.



El año que cambió el mundo

Global Context: Orientation in Space & Time

Theme Explorations: Contacto entre culturas los cambia

Key & Related Concepts: Time, place & space (patterns, point of view)

Statement of Inquiry: Culture is mediated by patterns and points of view situated in time, place and space.

Inquiry Questions:

Factual: What changed in the Americas and Europe after contact?

Conceptual: How does globalization affect how people live and their identities?

Debatable: If cultures change through contact, how do we avoid negative consequences during those interactions?

Assessment Criteria: Ai. Bi. Ci. Dii.

Traits: Inquirers, Thinkers, Communicators

ATL Skills: Communication- Negotiate ideas and knowledge with peers and teachers. Organize and depict information logically. Social - Work effectively with others.

<p style="text-align: center;">Virtual Collaboration</p> <p>Global Context: Identities & Relationships</p> <p>Theme Explorations: teams</p> <p>Key & Related Concepts: Communication (virtual communication)</p> <p>Statement of Inquiry: Communicating with care is required when teams are collaborating virtually.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> How does teamwork involve negotiating, delegating and sharing responsibility?</p> <p><u>Conceptual:</u> Is it important to help others succeed when collaborating on a team?</p> <p><u>Debatable:</u> How can we carefully communicate in a virtual context?</p> <p>Assessment Criteria: Interdisciplinary C</p> <p>Traits: Caring</p> <p>ATL Skills: <u>Communication-</u> Collaborate with peers using a variety of media and digital environments. <u>Social-</u> Help others to succeed</p>	<p style="text-align: center;">Who's Watching the Adults?</p> <p>Global Context: Fairness & Development</p> <p>Theme Explorations: peace, sustainable development</p> <p>Key & Related Concepts: Connections (human rights, empathy)</p> <p>Statement of Inquiry: An empathetic understanding of our human connections can engender a desire to take action for peace and sustainable development.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What systems are in place at a global level to address inequality, rights, fairness and development? What is the structure of the UN and its purposes? What is the Universal Declaration of Human Rights (UDHR)? What are the UN's 17 Sustainable Development Goals (SDGs)?</p> <p><u>Conceptual:</u> How can citizens find peaceful ways to manage global conflicts? How do the UN's SDGs affect individual countries' goals for fairness and development?</p> <p><u>Debatable:</u> Which of the SDGs is most important in your opinion? Should the United States sign the UDHR?</p> <p>Assessment Criteria: Bi, ii, iii.</p> <p>Traits:</p> <p>ATL Skills:</p>	<p style="text-align: center;">Every Ending is a New Beginning</p> <p>Global Context: Identities & Relationships</p> <p>Theme Explorations: transitions</p> <p>Key & Related Concepts: Change (empathy)</p> <p>Statement of Inquiry: Through empathy for ourselves and others, we can navigate transitions in our identities & relationships</p> <p>Inquiry Questions:</p> <p><u>Factual:</u></p> <p><u>Conceptual:</u></p> <p><u>Debatable:</u></p> <p>Assessment Criteria:</p> <p>Traits:</p> <p>ATL Skills:</p>
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<p>Extending Creativity Through Theme Global Context: Personal and Cultural Expression Theme Explorations: The ways in which we reflect on, extend and enjoy our creativity using theme Key & Related Concepts: Creativity (play) Statement of Inquiry: Using imagination and divergent thinking in play (improvisation), we extend and develop our creativity. Inquiry Questions: <u>Factual:</u> What is improvisation? What is subtext? <u>Conceptual:</u> How can improvisation help us in our daily lives? <u>Debatable:</u> Why is learning how to play improvisation games essential to developing a creative and divergent way of thinking? Assessment Criteria: Cii, iii IB Learner: Communication, Risk-takers ATL Skills:</p>	<p>Through-Creating the Character Global Context: Identities and Relationships Theme Explorations: Consciousness and mind. Attitudes. Motivation. Independence Key & Related Concepts: Creativity (interpretation, role) Statement of Inquiry: Through the use of script analysis and personal interpretation, actors access roles (characters) using creativity, personal experience and style. Inquiry Questions: <u>Factual:</u> How can an actor understand certain aspects of a character or a scene from the script? <u>Conceptual:</u> Why are various performances of the same piece of work different? <u>Debatable:</u> Why would it be considered wrong or right to change the written words of a playwright to the point of altering the message? Assessment Criteria: IB Learner: ATL Skills:</p>
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Freedom of Expression

Global Context: Personal and Cultural Expression

Theme Explorations:

Key & Related Concepts: Communication (expression)

Statement of Inquiry: Dramatic works communicate messages of personal and cultural expression.

Inquiry Questions:

Factual: What is freedom?

Conceptual: How does freedom of expression affect people's lives, community and the world?

Debatable: How does freedom of expression affect theatre and film?

Assessment Criteria:

IB Learner:

ATL Skills:

<p>Actions Speak Louder Than Words Global Context: Personal & Cultural Expression Theme Explorations: craft Key & Related Concepts: Communication (representation, audience) Statement of Inquiry: Intentional crafting of expression can help your audience understand your message. Inquiry Questions: <u>Factual:</u> What is craft? How is pantomime a form of communication and representation? <u>Conceptual:</u> Why is it important to practice physical gestures in order to communicate? <u>Debatable:</u> Is verbal or nonverbal expression more effective? Assessment Criteria: Bii, Diii IB Learner: Reflective, Communicators ATL Skills: <u>Self-Management-</u> Demonstrate persistence and perseverance. Resilience: Practise “failing well.” Reflection: Keep a journal to record reflections.</p>	<p>Acting Choices Global Context: Identities and Relationships Theme Explorations: Consciousness and mind Key & Related Concepts: Perspective (role) Statement of Inquiry: Identities and relationships shape an actor's perspective and the way a role is understood and performed. Inquiry Questions: <u>Factual:</u> What is something an actor cannot change when taking on a role? <u>Conceptual:</u> How does an actor's background and upbringing shape the way they interpret a role or character? <u>Debatable:</u> How does being mindful and conscious of perspective increase the depth of a role that an actor Assessment Criteria: Diii IB Learner: ATL Skills:</p>	<p>Actions Speak Louder Than Words Global Context: Personal & Cultural Expression Theme Explorations: craft Key & Related Concepts: Communication (representation, audience) Statement of Inquiry: Intentional crafting of expression can help your audience understand your message. Inquiry Questions: <u>Factual:</u> What is craft? How is pantomime a form of communication and representation? <u>Conceptual:</u> Why is it important to practice physical gestures in order to communicate? <u>Debatable:</u> Is verbal or nonverbal expression more effective? Assessment Criteria: Bii, Diii IB Learner: Reflective, Communicators ATL Skills: <u>Self-Management-</u> Demonstrate persistence and perseverance. Resilience: Practise “failing well.” Reflection: Keep a journal to record reflections.</p>
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Color, Value, Texture, and Form

Global Context: Personal & Cultural Expression

Theme Explorations: creation

Key & Related Concepts: Communication (audience, perspective)

Statement of Inquiry: Intentional application of color, value, texture, and form can communicate ideas and moods, and challenge perspectives.

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria: Ai, ii, iii. Bi, ii. Ci, ii, iii. Di, ii, iii.

Traits: Reflective, Communicators

ATL Skills: Self-Management- Focus on the process of creating by imitating the work of others. Keep a journal to record reflections.

Line, Shape and Space

Global Context: Personal & Cultural Expression

Theme Explorations: creation

Key & Related Concepts: Aesthetics (line, shape, space, composition, expression)

Statement of Inquiry: Aesthetic qualities in a composition can express feelings and communicate identity.

Inquiry Questions:

Factual: What are the different types of directional line? How can negative and positive space create a balanced composition?

Conceptual: How can line create directional movement? How can shape and space create the illusion of distance?

Debatable: Does line, shape or space create the greatest emotional response in viewers?

Assessment Criteria: Ai, iii. Bi, ii. Ciii. Diii.

Traits: Reflective, Communicators

ATL Skills: Self-Management- Focus on the process of creating by imitating the work of others. Keep a journal to record reflections.

Principles of Art

Global Context: Personal & Cultural Expression

Theme Explorations: civilization, heritage

Key & Related Concepts: Aesthetics (artistry, craft, creation, beauty))

Statement of Inquiry: The principles support the elements of visual art.

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria:

Traits:

ATL Skills:

Ancient Greece

Global Context: Orientation in Space & Time

Theme Explorations: civilization, heritage

Key & Related Concepts: Aesthetics (visual culture, style)

Statement of Inquiry: Architecture and aesthetics can be designated with symmetry and balance.

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria:

Traits:

ATL Skills:

<p style="text-align: center;">Virtual Collaboration</p> <p>Global Context: Identities & Relationships</p> <p>Theme Explorations: teams</p> <p>Key & Related Concepts: Communication (virtual communication)</p> <p>Statement of Inquiry: Communicating with care is required when teams are collaborating virtually.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> How does teamwork involve negotiating, delegating and sharing responsibility?</p> <p><u>Conceptual:</u> Is it important to help others succeed when collaborating on a team?</p> <p><u>Debatable:</u> How can we carefully communicate in a virtual context?</p> <p>Assessment Criteria: Interdisciplinary C</p> <p>Traits: Caring</p> <p>ATL Skills: <u>Communication-</u> Collaborate with peers using a variety of media and digital environments. <u>Social-</u> Help others to succeed.</p>	<p style="text-align: center;">Art of the Portrait</p> <p>Global Context: Orientation in Space & Time</p> <p>Theme Explorations: peoples</p> <p>Key & Related Concepts: Change (visual culture, style)</p> <p>Statement of Inquiry: Portraiture in art identifies emotion, cultural awareness, and social norms throughout space and time.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> What is the history of portraiture?</p> <p><u>Conceptual:</u> Do portraits have hidden meanings? Does symbolism play a part?</p> <p><u>Debatable:</u> Are portraits accurate representations of the subject?</p> <p>Assessment Criteria: Di, iii.</p> <p>Traits: Open-minded, Inquirers</p> <p>ATL Skills: <u>Critical Thinking:</u> Recognize unstated assumptions and bias. <u>Creative Thinking:</u> Consider multiple alternatives, including those that might be unlikely or impossible</p>	<p style="text-align: center;">Symbols, Messages, Meaning</p> <p>Global Context: Orientation in Space & Time</p> <p>Theme Explorations: civilization, heritage</p> <p>Key & Related Concepts: Communication (narrative, symbolism)</p> <p>Statement of Inquiry: Artists can communicate specific narratives through symbols, text and visual placement of imagery.</p> <p>Inquiry Questions:</p> <p><u>Factual:</u> Are there symbols that have more than one meaning?</p> <p><u>Conceptual:</u> Do all colors have specific meaning concerning symbolism?</p> <p><u>Debatable:</u> Discuss a symbol and its various meanings.</p> <p>Assessment Criteria: Aii. Ci, iii.</p> <p>Traits: Reflective, Communicators</p> <p>ATL Skills: <u>Communication-</u> Use intercultural understanding to interpret information. Use a variety of media. Use and interpret a range of symbols.</p>
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CP Spells Sympathy

Global Context: Scientific & Technical Innovation

Exploration: Systems, models, methods; products, processes and solutions

Concepts: Development, Evaluation, Function

Statement of Inquiry: Evaluation of solutions based on their function is a crucial component of the product development process.

Inquiry Questions:

Factual: What is the design process?

Conceptual: How is a design process used to effectively develop a design solution that solves a problem or addresses a design opportunity?

Debatable: Why is communication of design ideas with teams and with stakeholders important throughout the design process?

Assessment Criteria: A, D

IB Learner: Reflective

ATL Skills: Communication Skills- exchanging thoughts, messages and information effectively through interaction, give and receive meaningful feedback. Information Literacy Skills- finding, interpreting, judging and creating information, collect and analyse data to identify solutions and make informed decisions. Creative Thinking Skills- generating novel ideas and considering new perspectives, use brainstorming and visual diagrams to generate new ideas and inquiries, design improvements to existing machines, media and technologies

Puzzled by the Puzzle!

Global Context: Scientific & Technical Innovation

Exploration: mathematical puzzles, principles and discoveries

Concepts: Communication, Form, Function

Statement of Inquiry: Applying form and function helps us communicate new principles and discoveries.

Inquiry Questions:

Factual: What is the purpose of using criteria and the constraints when designing a project?

Conceptual: How can mathematical modeling help designers understand a design?

Debatable: How has the evolution of rapid prototyping tools impacted design fabrication?

Assessment Criteria: B, C

IB Learner: Thinker

ATL Skills: Communication Skills- exchanging thoughts, messages and information effectively through interaction, share ideas with multiple audiences using a variety of digital environments and media. Critical Thinking Skills- analysing and evaluating issues and ideas, propose and evaluate a variety of solutions, identify obstacles and challenges

Therapeutic Tool Design Challenge

Global Context: Fairness and Development

Explorations: inclusion and equity

Concepts: Communities (ergonomics, function, invention)

Statement of Inquiry: Function and ergonomics are important factors in the invention of new products for communities with special needs.

Inquiry Questions:

Factual:

Conceptual:

Debatable:

Assessment Criteria:

Traits:

ATL Skills:

What Are Robots For?

Global Context: Globalization & Sustainability

Explorations: markets, commodities and commercialization

Concepts: Development (function, innovation)

Statement of Inquiry: Innovations and their commercialization are functions of market demands and availability of commodities among global societies.

Communities (ergonomics, function, invention)

Inquiry Questions:

Factual: What is automation and its purpose in society?

Conceptual: How are robots used, and what is their impact on the global economy?

Debatable: What will be the impacts of robots on our society in the next decade? For the future, should there be ethical considerations when weighing limitations of robots?

Assessment Criteria: Ai, ii, iii, iv. Bi, ii, iii, iv.

Traits: Communicators

ATL Skills: **Communication:** Read a variety of sources for information and for pleasure. Make inferences and draw conclusions. **Research:** Access information to be informed and inform others.

Mechanisms of Life

Global Context: Personal & Cultural Expression

Explorations: products, systems, institutions

Concepts: Systems (form, function)

Statement of Inquiry: Differentially functioning systems work together to create the desired form.

Inquiry Questions:

Factual: What is a gear ratio? What are movement direction, speed, force and torque?

Conceptual: How do engineers and technologists design mechanisms to change energy by transferring direction, speed, type of movement, and force or torque?

Debatable: Does a system need to be complex to be considered creative? How does culture influence system design?

Assessment Criteria: Bi, ii, iii, iv. Ci, ii, iii, v. Di, ii, iii, iv.

Traits: Reflective

ATL Skills: **Communication:** Negotiate ideas and knowledge with peers and teachers.

Self-Management: Plan short- and long-term assignments; meet deadlines. Keep and use a weekly planner for assignments. **Affective skills:** Demonstrate persistence and perseverance. Practise delaying gratification. Practise “failing well.”

Automation in Space

Global Context: Scientific and Technical Innovation

Explorations: modernization, industrialization, engineering

Concepts: Communities (adaptation, form, function, sustainability)

Statement of Inquiry: Adaptation of form and function is important for communities to create a sustainable habitat.

Inquiry Questions:

Factual: How do we use a closed-loop system to determine robot behavior?

Conceptual: What are functions, loops, and variables in a computer program?

Debatable: How can we use modern engineering tools to create a sustainable habitat in space?

Assessment Criteria: Ai, ii, iii, iv. Bi, ii, iii, iv. Ci, ii, iii, iv.

Traits: Thinkers

ATL Skills: **Creative Thinking:** Apply existing knowledge to generate new ideas, products or processes. **Transfer Thinking:** Combine knowledge, understanding and skills to create products or solutions

A Medical Detective?

Global Context: Scientific and Technical Innovation

Explorations: the biological revolution

Concepts: Communication (evaluation, function)

Statement of Inquiry: The evaluation process of functions is crucial to communicate essential information.

Inquiry Questions:

Factual: What is a medical detective and what other medical occupations do they collaborate with?

Conceptual: What factors affect individual and social homeostasis?

Debatable: How can we use social communication channels to prevent epidemics?

Assessment Criteria: Ai, ii, iii, iv. Bi, ii, iii, iv. Di, ii, iii, iv.

Traits: Thinkers

ATL Skills: Communication: Give and receive meaningful feedback. Read critically and for comprehension. Read a variety of sources for information and for pleasure. Make inferences and draw conclusions. Paraphrase accurately and concisely. Organize and depict information logically.

CSI Mystery

Global Context: Fairness and Development

Explorations: rights, law, civic responsibility and the public sphere

Concepts: Development (innovation, invention)

Statement of Inquiry: Current innovations and inventions in biomedical engineering leads to development of important techniques in DNA analysis.

Inquiry Questions:

Factual: What is DNA fingerprinting?

Conceptual: How can we use DNA identification techniques in different areas of life?

Debatable: Should the government or private companies have access to individuals' DNA information?

Assessment Criteria: Bi, ii, iii, iv. Ci, ii, iii, iv.

Traits: Inquirers

ATL Skills:

Mysteries of Body Systems and Epidemics

Global Context: Globalization and Sustainability

Explorations: human impact on the environment; population and demography

Concepts: Systems (adaptation, form, function)

Statement of Inquiry: Systems rely on form and function to adapt to new environments that are complex and dynamic.

Inquiry Questions:

Factual: How does form impact function of the human body systems?

Conceptual: How can we create systems to protect populations against epidemics?

Debatable: Should vaccinations be mandatory globally?

Assessment Criteria: Ai, Bi, ii, iii, iv, Civ, Dii, iii, iv

Traits: Communicators

ATL Skills: Communication: Give and receive meaningful feedback. Negotiate ideas and knowledge with peers and teachers.