

| Language and literature | | | |
|-------------------------|---------------|---------|-----------------|
| Audience imperatives | Character | Context | Genre |
| Intertextuality | Point of view | Purpose | Self-expression |
| Setting | Structure | Style | Theme |

Audience Imperatives - An umbrella concept to refer to whomever (the reader, the listener, the viewer) a text or performance is aimed at, and the characteristics, impact or desired responses created. This impact could include humour, sensibility, critical stance, appreciation, empathy, antipathy and sympathy, aesthetics, mood, atmosphere and gender perspectives.

Character - The representation of persons in narrative and dramatic works. This may include direct methods like the attribution of qualities in description or commentary, and indirect (or “dramatic”) methods inviting readers to infer qualities from characters’ actions, speech or appearance. When exploring the concept of character, students might explore transformation, influence, conflict, protagonist, antagonist, persona, foil, stock.

Context - The social, historical, cultural and workplace settings in which a text or work is produced. All texts may be understood according to their form, content, purpose and audience, and through the social, historical, cultural and workplace contexts that produce and value them. Literary texts are influenced by social context, cultural heritage and historical change. Students should be encouraged to consider how texts build upon and transform the inherited literary and cultural traditions. Cultural context refers to the way of life, especially the general customs and beliefs, of a particular group of people at a particular time.

Genre- A type or category of literature or film marked by certain shared features or conventions. Conventions are the characteristics of a literary genre. These features may, of course, vary between languages. Each genre has recognizable techniques, referred to as literary conventions, and writers use these conventions, along with other literary features, in order to achieve particular artistic ends. A study of genres includes essential understandings about conventions of genre: form, style, storyline, characterization, tone, mood, atmosphere, register, visual images and layout, narrative/storytelling, prose (foreshadowing, flashbacks, stream of consciousness in novels and short stories), poetry (metre, rhyme), drama, mythology and other fiction (for example, graphic novels, satires, oral traditions, screenplays, film and episodic television) and non-fiction (for example, autobiography, biography, travelogues, essays, letters, literary non-fiction, speeches). Examples of conventions in drama may include dialogues, speeches, monologues, soliloquies, asides, stage directions, voice, movement, gesture, use of space, costume, props, lighting, set and sound.

Intertextuality - The connections between one text and other texts, the ways in which texts are interrelated, and the meanings that arise out of their interrelationship. An overt

reference to another text (as in a direct quote from another text) is also an example of intertextuality.

Point of View - The particular perspective brought by a composer, responder or character within a text to the text or to matters within the text. It also entails the position or vantage point from which the events of a story seem to be observed and presented to us. When exploring this concept, students will, for example, consider positioning, voice and tone.

Purpose - In literary terms, the creator's intentions in producing the text. This concept could also engage students in exploration of meaning, thesis/argument, gender, age, bias, persuasive techniques, function, critical stance, message and culture.

Self-expression - The expression of one's feelings, thoughts or ideas, especially in writing, art, music, dance, design and film. This umbrella concept includes an exploration of essential understandings about identity, voice (personal), inspiration, imagination, sensitivity, critical stance and process.

Setting - The time and the place in which the action of a book, film, play, and so on happens. Setting may also include mood and atmosphere.

Structure - The way in which a poem or play or other piece of writing has been put together, and the relationships of different parts of a text to each other and to the text as a complex whole. This can include exploring metre pattern, stanza arrangement and the way the ideas are developed. Structure requires essential understandings about plot, narrative, discourse, form, transformation, thesis/argument, syntax, foreshadowing and flashbacks.

Style - The characteristic way that a writer uses linguistic devices, literary devices and features for particular purposes and effects; for example, word choice, sentence structure, figurative devices, repetition, motif, allusion, imagery and symbolism.

Theme - The central idea or ideas the creator explores through a text.

from MYP Language and Literature Guide

| Language acquisition | | | |
|----------------------|------------------|-------------|---------------|
| Phases 1–2 | | | |
| Accent | Audience | Context | Conventions |
| Form | Function | Meaning | Message |
| Patterns | Purpose | Structure | Word choice |
| Phases 3–4 | | | |
| Audience | Context | Conventions | Empathy |
| Function | Idiom | Meaning | Message |
| Point of view | Purpose | Structure | Word choice |
| Phases 5–6 | | | |
| Argument | Audience | Bias | Context |
| Empathy | Idiom | Inference | Point of view |
| Purpose | Stylistic choice | Theme | Voice |

Accent - Accent refers to the pronunciation of a language, usually in a geographical or socioeconomic context in a first language. It encompasses spoken communication. In a target language, the first language accent may influence accent in the target language.

Argument - Argument refers to the coherent backdrop of reasoned text that may or may not involve disagreement, debate or persuasion.

Audience - Refers to whomever a text or performance is aimed at: the reader, the listener, the viewer.

Bias - Bias refers to a conscious distortion or exaggeration, which usually expresses prejudice or partiality.

Context - The social, historical, cultural and workplace settings in which a text or work is produced.

Conventions - Conventions are the characteristics of a literary or non-literary genre. These features may, of course, vary between languages. Each genre has recognizable techniques, referred to as literary or linguistic conventions, and writers use these conventions, along with other features, in order to achieve particular artistic ends.

Empathy - Empathy refers to an attitude of understanding, an emotional identification with a person, character, argument or situation.

Form - Form refers to the linguistic shape communication may take. It is the mould that

is filled with linguistic content.

Function - Function refers to the purpose and/or use of communication.

Idiom - Idiom is unique to each language. It refers to a manner of speaking or to specific expressions whose meaning differs from the meaning of its individual components.

Inference - Information in a text that goes beyond what is first understood or apparent, to identify what may be thought, expressed or considered correct. It is the layer of text that is often referred to as “between the lines”.

Meaning - Meaning refers to what is communicated, by intention or by implication, using any range of human expression. It is sometimes referred to as “message”. Meaning includes “layers of meaning”, nuance, denotation, connotation, inference, subtext.

Message - A communication in writing, speech, verbal or non-verbal language. The message can also be an underlying theme or idea.

Patterns - Patterns refers to use of language and style, which can be functional, decorative or social. They reflect the unique characteristics of a language

Point of View - The particular perspective brought by a composer, responder or character within a text to the text or to matters within the text. It also entails the position or vantage point from which the events of a story seem to be observed and presented to us. When exploring this concept, students will, for example, consider positioning, voice and tone.

Purpose - The purpose for communicating can be, for example, to entertain, to recount, to socialize, to inquire, to inform, to persuade, to explain, to instruct. In literary terms, the creator’s intentions in producing the text. This concept could also engage students in exploration of meaning, thesis/argument, gender, age, bias, persuasive techniques, function, critical stance, message.

Structure - Structure refers to the organization, pattern and elements of text, in any format. It promotes comprehension and effectiveness of communication. For example, this may involve an introduction, development and conclusion (as in some types of formal essay)

Stylistic Choices - A creator makes choices about what they are going to describe and how to describe it in order to create effect. It is an umbrella term covering literary and non-literary features: linguistic devices (for example, rhetorical, syntax, repetition); literary devices (for example, symbolism, metaphor, simile); visual devices (for example, colour, texture, symbolism, foregrounding).

Theme - Theme refers to a dominant subject, thread or idea that is conveyed through a

text form.

Voice - This concept relates to both a reader's experience of a work of literature and a writer's style when producing text. Voice is the characteristic speech and thought patterns of a narrator; a persona, which conveys his or her attitude, personality, and character.

from *MYP Language Acquisition Guide*

| Individuals and societies | | | |
|--|-----------------------------|---------------------------|---------------------|
| Economics | | | |
| Choice | Consumption | Equity | Globalization |
| Growth | Model | Poverty | Power |
| Resources | Scarcity | Sustainability | Trade |
| Geography | | | |
| Causality (cause and consequence) | Culture | Disparity and equity | Diversity |
| Globalization | Management and intervention | Networks | Patterns and trends |
| Power | Processes | Scale | Sustainability |
| History | | | |
| Causality (cause and consequence) | Civilization | Conflict | Cooperation |
| Culture | Governance | Identity | Ideology |
| Innovation and revolution | Interdependence | Perspective | Significance |
| Integrated humanities (drawn from economics, geography and history) | | | |
| Causality (cause and consequence) | Choice | Culture | Equity |
| Globalization | Identity | Innovation and revolution | Perspective |
| Power | Processes | Resources | Sustainability |

Economics

Choice - Choice involves making a decision between at least two alternatives, knowing that in selecting one item, we will have to go without the other (for example if we buy a camera, we cannot also buy a phone with the same money). Because of scarcity (unlimited needs and wants being met by limited resources) we must make choices about which needs and wants to meet with the resources we have. We break economic choice down into three more specific questions: What products should we make and how much of each product should we produce? How should we make our products (that is how should we combine our resources to produce goods)? Who should get the products we make (that is based on which criteria, for example wealth or fairness, should products be distributed)?

Consumption - Consumption is the use of products to satisfy immediate needs and

wants. Products that we use to directly meet our needs and wants are called consumer goods (for example, a television meets the desire for entertainment). Alternatives to consumption include investment and conservation. In investment, products are produced and can then be used to make other goods and services, rather than being immediately consumed. In conservation, production is avoided in order to preserve resources. Both investment and conservation allow for the possibility of higher consumption in the future. The proper combination of consumption, investment and conservation is a question for debate.

Equity - Equity involves concerns about fairness and justice. A major issue of equity is that of distribution of an economy's products. Those who have more income and wealth are able to consume more products, and if differences in consumption are large enough, extremes of inequity or unfairness may result. What constitutes a fair or equitable distribution of consumption is a question for debate.

Globalization - As a related concept, globalization encompasses local, national and global repercussions and expectations for our "shrinking" world. Economic globalization is the increasing integration of national economies so that resources, products and information flow more freely across borders. Globalization is an ongoing process that can accelerate, slow down, or even be reversed. Currently, many arrangements exist between countries that increase economic integration to varying degrees (that is various types of trading blocs). Globalization can be slowed or reversed when governments or other groups take actions to limit the movement of resources, products or information across borders. This can happen for many reasons, including but not limited to: war, a desire to protect domestic industries or a desire to collect taxes on imports.

Growth - Growth is an increase in the value of all goods and services produced in an economy. It can occur as a result of an increase in the quantity of a society's resources or from more efficient use of existing resources. Whether or not economic growth leads to development (increased well-being for all persons in the economy) depends on what products are produced and how they are distributed.

Models - Models are simplified simulations of certain aspects of the economy. Models are necessary because the complexity of a real economy makes it difficult to control the necessary variables in order to run experiments. When we construct economic models, we face the challenges of accounting for the complexity of the real economy and the fact that the behaviour of human beings can be unpredictable.

Poverty - Poverty is a situation in which people are unable to consume at an adequate level. When people cannot meet their basic needs for survival, such as clothing, food and shelter, they are living in poverty. However, some argue that an adequate level of consumption goes beyond basic necessities, and includes things like education and health care. Therefore, the level of consumption below which poverty occurs is a question for debate.

Power - Power of individuals and of groups can be defined as a capacity to make things happen. In economics, power is the ability to make choices about what to produce, how to produce it, and who gets the goods that are produced. Power can be more centralized, as in a command economy where economic choices are made by the government, or monopoly/oligopoly situations where economic choices are made by a few large firms. Power can also be decentralized, as in a free market economy where many firms and consumers share power

Resources - Resources are the things we use to make the products that meet our needs and wants. Economists also call them factors of production and place them in four general categories: land, labour, capital and entrepreneurship/management. Entrepreneurs combine land, labour and capital in different ways in order to produce different goods and services. For example, the owner (entrepreneur) of a fruit and vegetable store combines fruits and vegetables (natural resources/land) with the building in which the store is located (capital) and his or her work and that of his or her employees (labour) to provide a product to consumers (fruit and vegetables available in a convenient location).

Scarcity - A good is scarce when the demand for it is greater than the supply at a price of zero. Charging prices for goods helps us address the problem of scarcity. Scarcity arises from the fact that our needs and wants are unlimited, while the resources available to meet those needs and wants are limited. This forces us to choose which wants and needs to satisfy and which not to satisfy. The wants and needs we do not satisfy represent the costs for those that we do. For example, if we choose to use our resources to make televisions rather than books, then the cost of the televisions is the books we could not make after having used our resources on televisions. This economic understanding of cost is often called "opportunity cost".

Sustainability - The concept of sustainability implies the notion of living within our means and it is central to an understanding of the nature of interactions between environmental systems and societies. Sustainability is a state in which we meet our current needs and wants without hurting the ability of future generations to meet theirs. Sustainability can be enhanced by conserving resources (that is not using them to produce goods), finding ways to produce products more efficiently (that is using fewer resources in production), or discovering new resources. Increased consumption in the present may undermine sustainability unless it occurs through more efficient production that uses fewer resources to produce the same products (for example, the energy needed to heat a home requires large quantities of wood but relatively small quantities of natural gas, making natural gas a more sustainable resource choice for this purpose).

Trade - Trade is the exchange of goods and services between the various participants in an economy. When people are allowed to trade freely, including across national borders, overall wealth usually grows. However, the gains from this increase in wealth may not be distributed equally. Trade can be limited by various factors including, but not limited to: war and terrorism, natural disasters, government regulations and taxes, control of

markets by monopoly firms, and actions by workers such as strikes.

Geography

Causality - Causality is the relationship between cause and effect and the internal and external factors that influence this relationship. Geographers understand that behind every geographical phenomenon—be it physical or human—there is an outlying “cause” which leads to an “effect”; the consequence(s) of which can either be known or unknown. Causes can be direct or intervening, and they can be internal and external. Geographers study causality not only as fixed and end points of geographical phenomena, but also in the events and actions that occur in between these points. An example of which is the causality of plate tectonics; geographers analyse the cause and effects of plate tectonics, but also plate tectonic sub-themes such as disaster management and P and S waves. Causality in geography is inherently linked with the key concept of “change” and can exist across a wide spectrum of times, places and spaces, another of the individuals and societies key concepts.

Culture - Culture helps shape, define and guide civilizations and individuals and it influences the relationship between them and the environment. Cultures are constituted by learned behaviours and values shared by groups and transmitted through socialization. Geographers study cultural traits of places in terms of language, customs, beliefs, dress, images, music, food and technology. Units that explore the related concept of culture could include issues of cultural diffusion, cultural contestation, and the process of consumerism.

Disparity & Equity - Equity involves concerns about fairness and justice. Disparity is the uneven distribution of a given quality, indicator or resource and it can be opposed to the concept of equity. Geography is often the study of the condition or fact of being unequal—recognizing that the world around us has inequality, disproportionate opportunity and discrepancy, which, creates disparity. What causes the gap between those that have and those that have not? What does it mean “to have” and to “have not”? What is the perception of a disparity? As a related concept, disparity should have a degree of scale and harness the essential drivers of disparity: economics, opportunity, access to resources, choices, values and freedom. Inequality might be based on gender, ethnicity, age, location, citizenship and income, among other variables

Diversity - The point or aspect by which things differ is critical to the study of geography both in the human and physical senses. Both the human and physical world have differences that intrinsically mesh to create a planet of diversity and a unique world. Places, environments and peoples are diverse. Diversity can be investigated over time and space. The focus could be on physical or cultural diversity

Globalization - As a related concept, globalization encompasses local, national and global repercussions and expectations for our “shrinking” world. It has been characterized by some geographers as a process of time–place convergence and it is characterized by an increasing interdependence among peoples and nations. The cultural, political and

economic interconnectedness of the global economy is an undeniable trend that has been amplified by rapid improvements in technology and communication systems. Globalization can be simultaneously positive and negative for people and the natural environment depending on the range of changes that result and the perspective of the analyst. Globalization as a concept has also been questioned by some who have preferred to speak of processes of “westernization”, “globalization” or “mundialization”

Management & Intervention - Management can be defined as the human intervention in both natural and human contexts to achieve desired ends. MYP geography courses should consider the ways in which humans respond to the challenges of managing quantity and quality of resources, as well as the consequences of management. Often we see these as ways of solving problems through finding ways to preserve unique components of our lithosphere (land/waste management), hydrosphere (coastal/ water management), biosphere (conservation and animal/plant/agricultural management) and atmosphere (clean air management). Management can be embedded into political geography as a related concept by looking at governance through laws or education to enable better choices. Decision-making and management are dependent on the differences in the balance of power held by different stakeholders (see related concept of power).

Networks - Networks are interconnected groups or systems. Networks are usually composed of nodes or parts that depend upon each other; when one of these nodes or parts changes it usually affects the other parts. These individual parts of a network usually exist within a measurable hierarchical scale. In geography, the concept of networks can be explored in a vast array of sizes and level of complexity. A network can range from the populations of herbivores within a national park to all of the lakes, aquifers, rivers and streams in the Amazon Basin. Also, networks can be explored at the world systems level with the interaction between the core and the periphery. Geographers understand that most of the processes they study are not isolated phenomena but rather interconnected pieces of a greater network. Networks are intrinsically linked to the key concept of “systems” and they exist across a wide spectrum of times, places and spaces, another of our key concepts.

Patterns & Trends - Patterns are regular arrangements of something in a study area (space or place) and trends are regular arrangements of something over time. Patterns and trends can be established at different levels of analysis or at different scales, from the local to the national and regional, to the global. Patterns and trends can also be used as important tools to help predict and anticipate geographic processes in both human and natural contexts. Patterns and trends in geography are inherently linked to the concept of “systems” and they exist across a wide spectrum of times, places and spaces, another of our key concepts.

Power - Power of individuals and of groups can be defined as a capacity to make things happen. Within geography, the balance of power can be considered in terms of physical processes, such as the power of erosion versus deposition. The balance of power is also

significant in terms of human development and interaction—the relative power of government, transnational corporations, multilevel government organizations, civil society organizations and the rights of individual communities and citizens. MYP geography courses should seek to understand not only how people and environments are interlinked with and within themselves but also how power underpins those relationships. The concept of power raises the issue of equity and the rights of different groups, including gender groups, and the rights of indigenous peoples in the competition over resources. Competition in geography is the struggle among conflicting interests. Competition over resources (land, food, timber, water, oil and other energy sources) is central to the study of modern-day geography and it raises the question of the rights to resources and power over them.

Processes - Processes are measured movements in the physical, human or cultural world to reach particular results or consequences, marking gradual changes in geography. These can have expected or unintended outcomes. This as a related concept is widely applicable across all areas of geography. A process that is particularly important for geographers is that of development. Even though the definition of development is subject to much debate (especially regarding its indicators), it can be understood as a social, economic and political process that enables the rise in the standards of living of the population.

Scale - Scale represents the proportional relationship between a certain distance on a map and a certain distance on the Earth's surface. Scale as a related concept looks at the local, regional, national and international/global framework that the subject specific content is applicable to. Use of this related concept emphasizes that challenges, problems and ideas can be analysed at one of these scales and/or the interrelation among them. There should be recognition that they do not only happen in situ but also have an effect on each other.

History

Civilization - Civilization is a concept used to describe forms of social organization that are usually large, complex and have achieved a certain level of urbanization and cultural development. To become a civilization, a society usually undergoes a series of change processes, which lead to social development and organization in the society. Even though the concept of civilization was originally associated with a greater degree of advancement or development of a social organization, this relationship has been questioned by some historians for containing an overt value judgment

Conflict - Conflict can develop from inequalities in distribution of power and may manifest itself in many forms: protracted disagreements or arguments; prolonged armed struggles; clashes of opposing feelings or needs; serious incompatibilities between two or more opinions, principles, or interests. Historians study conflict between individuals and societies over time and across place and space, and they also examine how conflicts can be sources of continuity and catalysts for change.

Cooperation - Cooperation is the action or process of individuals or societies working together towards the same end. Historians examine the cooperation between societies, individuals, and environments in order to determine the positive, negative, short-term, and long-term factors that define/derive a historical event or process. Cooperation can be a catalyst for change or continuity. Cooperation between actors implies certain levels of responsibility.

Culture - Culture encompasses a range of unique experiences, behaviours, customs and ways of knowing within human communities throughout history. Culture is usually transmitted from generation to generation and it affects the way people perceive their world and the way they behave. Culture can be dynamic or static and is often examined by historians in relation to the time, place and space of historical events, processes or developments. Historians often examine changes in culture in order to make comparisons between the past and the present. Culture is a system.

Governance - Governance refers to mechanisms and processes that regulate authority in a given organization. It can apply to state and non-state institutions. Throughout time, people have organized governments in order to meet the needs of communities and individuals. Groups have created institutions and processes that have many forms and functions. Monarchies, republics, tribes, parliaments, presidents, dictators: these and other patterns of rule express a range of human values and reflect varied understandings of history and culture. At the heart of governance are questions about the distribution of resources, the making of laws, and the balance of power between individuals and the communities in which they live. Democratic governments are accountable to the people who choose them.

Identity - Identity is the combination of the values, beliefs and experiences that define, shape and inform who we are, our perspectives and how we behave as individuals, communities, societies and cultures. Identity shapes historical processes and interpretations. Identity is shaped by external and internal influences and it is relational (the notion of “we” as opposed to “them”). This concept refers to how both individual and group perceptions of the self, form, evolve and are expressed. From a historical perspective, identity can be examined as a cause or consequence of an event, idea or process. Additionally, the notion of citizenship appears as a politically and historically relevant form of identification on the part of peoples.

Ideology - An ideology is a system of ideas and ideals, which can form the basis of political or economic theories, policies and actions. Ideologies usually encompass systematic arrangements of premises and assertions that are used to interpret the world and make normative assertions about how it should be organized. Ideologies can evolve and change over time in order to meet the needs of a group of people or a society. Ideologies can be derived from the place and space in which a group of people or a society is located. Ideologies can evolve into political, economic or social systems and these systems can impact humans in a variety of ways. For example, through the definition of certain rights and responsibilities.

Innovation & Revolution - Innovation incorporates the understanding of processes that drive change and invention. In history, this concept looks at the process of generating new ideas, events, movements, products or solutions through the alteration, transformation, reorganization, restructuring, rearrangement, or renovation of existing ideas, events, movements, products or solutions. Innovation involves individuals and societies because they use their capacity to create, contrive and initiate a capacity that can lead to both positive and negative consequences in the short term and the long term.

Interdependence - Interdependence is the state of two or more individuals, groups or societies being reliant on each other. This mutual dependence is often derived from a need for individuals, groups or societies to grow, develop, change and/or advance. Interdependence can lead to a variety of results, both positive and negative. These results can be the same or different for the parties involved in the interdependent relationship. As well, these results can change depending on the time period and location in which the individuals, groups and/or societies exist. Relations of interdependence are not necessarily horizontal. Historiography can also study processes of dependency, domination and power between peoples or nations.

Perspective - Perspective is a concept of a different nature as it is more clearly related to the craft of the discipline. Perspective is the way someone looks at something taking into consideration all of the things that have happened with that thing in the past and the relationship between the viewer and the thing in the past being viewed. For historians, perspective implies a need for understanding different sides of an event.

Significance - Significance is a concept of a different nature as it is more clearly related to the craft of the discipline. It refers to the quality of having great value taking into account the historical context. Historical context is the political, social, cultural, and economic setting for a particular idea or event. In order to better understand something from history, we must look at its context—those things that surround it in time and place and that give it its meaning or value. In this way, we can gain, among other things, a sense of how unique or ordinary an event or idea seems to be in comparison to other events and ideas.

from MYP Individuals and Societies Guide

| Mathematics | | | |
|----------------|----------------|----------------|---------------|
| Change | Equivalence | Generalization | Justification |
| Measurement | Models | Patterns | Quantity |
| Representation | Simplification | Space | Systems |

Change - A variation in size, amount or behaviour.

Equivalence - The state of being identically equal or interchangeable, applied to statements, quantities or expressions

Generalization - A general statement made on the basis of specific examples.

Justification - Valid reasons or evidence used to support a statement.

Measurement - A method of determining quantity, capacity or dimension using a defined unit

Models - Depictions of real-life events using expressions, equations or graphs.

Patterns - Sets of numbers or objects that follow a specific order or rule.

Quantity - An amount or number

Representation - The manner in which something is presented.

Simplification - The process of reducing to a less complicated form.

Space - The frame of geometrical dimensions describing an entity.

Systems - Groups of interrelated elements

from *MYP Mathematics Guide*

| Sciences | | | |
|--|--------------|--------------|----------------|
| Biology | | | |
| Balance | Consequences | Energy | Environment |
| Evidence | Form | Function | Interaction |
| Models | Movement | Patterns | Transformation |
| Chemistry | | | |
| Balance | Conditions | Consequences | Energy |
| Evidence | Form | Function | Interaction |
| Models | Movement | Patterns | Transfer |
| Physics | | | |
| Consequences | Development | Energy | Environment |
| Evidence | Form | Function | Interaction |
| Models | Movement | Patterns | Transformation |
| The related concepts for modular sciences courses | | | |
| Balance | Consequences | Energy | Environment |
| Evidence | Form | Function | Interaction |
| Models | Movement | Patterns | Transformation |

Balance: Biology specific - The dynamic equilibrium that exists among members of a stable natural community; the regulation of the internal environment of an organism.

Balance: Chemistry specific - A state of equilibrium or stable distribution.

Conditions: Chemistry specific - The environment, both physical and chemical, of a reaction or process; factors which contribute to an interaction including temperature, pressure, concentration, pH and the absence or presence of a catalyst.

Consequences - The observable or quantifiable effects, results, or outcomes correlated with an earlier event or events.

Development: Physics specific - The process of applying theory to data and observations in order to improve, progress, or further scientific understanding.

Energy - The capacity of an object to do work or transfer heat.

Environment: Biology specific - All of the biotic and abiotic factors that act on an organism, population or community and influence its survival, evolution and development.

Environment: Physics specific - A description of the universe or a closed system through the application of the laws of physics; the complex of physical conditions or climate affecting a habitat or community.

Evidence - Support for a proposition derived from observation and interpretation of data.

Form - The features of an object that can be observed, identified, described, classified and categorized.

Function - A purpose, a role or a way of behaving that can be investigated; a mathematical relationship between variables.

Interaction - The effect or effects two or more systems, bodies, substances or organisms have on one another, so that the overall result is not simply the sum of the separate effects.

Models - Representations used for testing scientific theories or proposals that can be accurately repeated and validated; simulations used for explaining or predicting processes which may not be observable or to understand the dynamics of multiple underlying phenomena of a complex system.

Movement - The act, process, or result of displacing from one location or position to another within a defined frame of reference.

Patterns - The distribution of variables in time or space; sequences of events or features.

Transfer: Chemistry specific - The net movement of matter or particles from one location to another.

Transformation: Biology specific - Differentiation of a cell; change of energy form, including at a molecular level; alteration of molecules and metabolism and/or genetic make-up of an organism or species and consequently a community, relative to external factors.

Transformation: Physics specific - A change from one well-defined state to another well-defined state; an alteration in form or condition, including energy and particle nature.

from *MYP Sciences Guide*

| Physical and health education | | | |
|-------------------------------|------------|-------------|----------|
| Adaptation | Balance | Choice | Energy |
| Environment | Function | Interaction | Movement |
| Perspective | Refinement | Space | Systems |

Adaptation - Adaptation is the adjustment or changing of a skill, technique, strategy, tactic, process or choice in order to enhance its suitability to meet the needs of a situation or application. Adaptation may need to occur as a result of: environmental influences, feedback (internal and external), player interactions, team interactions and the outcomes of choices.

Balance - Balance is a state of equilibrium between contrasting, opposing, or interacting factors. Balance can occur in many forms, such as the aesthetically pleasing integration of elements in movement routines, the team stability provided by the even distribution of player roles, as a means of judging and deciding upon lifestyle choices, or by placing equal importance on each dimension of health.

Choice - Choice involves making a decision between at least two alternatives, knowing that, in making a choice, we will have to go without the other(s). Choices should be made by evaluating the situation and considering the resources available. Depending on the situation some choices will need to be decided upon quickly; such as choices required during game play. Other choices allow for longer periods of consideration; such as choices made in relation to nutrition or fitness development.

Energy - Energy is a fundamental entity that is transferred between parts of a system in the production of change within the system. It is the capacity for doing work and as such the amount and form of energy an individual requires is dependent on the task(s) they are completing. The restoration of an individual's energy levels is determined by a variety of factors such as rest, nutritional intake and time. Energy levels influence all aspects of human life, from our ability to think and make effective choices, to our ability to be physically active.

Environment - Environment refers to the circumstances, objects, or conditions by which an individual is surrounded. The effective performance of techniques, skills, strategies and tactics are influenced by environmental factors. Performers must understand environmental influences in order to be successful. An environment does not have to be physical. The digital environment, especially social media, has a significant impact on personal, mental, emotional and social health.

Function - A function is the action or role that something is specifically designed for or used to do. Functions can be voluntary or involuntary. A function can be part of a group of related actions that contribute to a larger action, such as the function of the heart

contributing to the overall health of the human body, or the function of a setter in a volleyball team who is responsible for orchestrating their team's offence. A variety of factors can influence the choice and effectiveness of specific functions.

Interaction - An interaction is the result of two or more objects, groups or ideas affecting each other. Interactions can occur in a variety of forms, such as verbally, physically and digitally. Depending on their nature, successful interactions can contribute to improved personal, social and performance outcomes.

Movement - Movement refers to the types and ways in which objects move. Sporting movements are normally divided into two categories: offensive (attacking) and defensive; however, various degrees occur within these two categories. Movement can also occur in relation to thoughts and ideas, a type of movement that relies on people aligning their thinking with others in relation to a specific cause or ideal.

Perspective - Perspective enables the development of different interpretations, understandings and findings. Perspective can be gained through putting yourself in the place of others and striving to understand their opinions and disposition. People gain perspective by listening to others and considering the ways in which their points of view align or differ. Seeking and considering multiple perspectives is crucial to personal, mental and social health development, as well as to our ability to develop effective sporting techniques, tactics and strategies.

Refinement - Refinement is the process of modifying something to enhance its overall effectiveness. Refinement can occur in relation to personal behaviours, thought processes, techniques, tactics and strategies. Refinements are made based on internal and/or external feedback.

Space - Space refers to the physical dimensions of a playing or performance area (for example, a badminton court), the distance between people or objects (for example offensive and defensive lines in field sports), and the opportunity to experience something (for example, space to discover identity). Space can be created, adapted, determined, used, taken, won and lost; therefore "space" is rarely absolute.

Systems- Systems are sets of interacting or interdependent components that form an integrated whole. All individuals and communities rely on multiple systems working together to provide the structure and processes that they need in order to function effectively. Effective game play relies on participants' understanding of multiple systems, including their components and interaction. Systems are often dynamic; they frequently need to be adapted to meet changing circumstances.

from MYP Physical and Health Education Guide

| Design | | | |
|--------------------|---------------|------------|----------------|
| Adaptation | Collaboration | Ergonomics | Evaluation |
| Form | Function | Innovation | Invention |
| Markets and trends | Perspective | Resources | Sustainability |

Adaptation - Adaptation involves incorporating ideas found in one product into the development of a new product.

Collaboration - Collaboration involves two or more people sharing expertise and experience, working together to solve a problem and realize shared goals.

Ergonomics - Ergonomics is the application of scientific information and understanding of how humans relate to products, systems, interfaces and environments

Evaluation - In design, evaluation involves the gathering and processing of data to determine an action. Evaluation involves feedback, which can be used to control, revise or modify.

Form - Form concerns the overall shape and configuration of a product. It relates to aspects such as aesthetics, shape, colour and texture

Function - The function of a solution refers to what it has been designed to do and how effective it is at enabling that action to be performed.

Innovation - Innovation is the successful diffusion of an invention into the marketplace.

Invention - An invention is an entirely novel product or a feature of a product that is unique

Markets & Trends - Markets can be considered as sectors and segments comprised of groups of individuals with similar needs. Trends involve short- and long-term patterns of consumer behaviour.

Perspective - Perspective relates to the point of view of various stakeholders involved in solving a problem. Stakeholders can have different perspectives and can include clients, target audiences, focus groups, consumers, manufacturers and experts.

Resources - Resources relate to the supply of a commodity. In MYP design, these commodities can be classified as information, materials and equipment.

Sustainability - Sustainability is the capacity to endure, which can have environmental, economic and social dimensions. In MYP design, sustainability can be considered in the

following ways: green and eco-design, sustainable consumption, sustainable design, sustainable development, sustainable innovation, sustainable production

from *MYP Design Guide*

| Arts | | | |
|-----------------|----------------|----------------|----------------|
| Visual arts | | | |
| Audience | Boundaries | Composition | Expression |
| Genre | Innovation | Interpretation | Narrative |
| Presentation | Representation | Style | Visual culture |
| Performing arts | | | |
| Audience | Boundaries | Composition | Expression |
| Genre | Innovation | Interpretation | Narrative |
| Play | Presentation | Role | Structure |

Audience - An individual or group who receive and/or respond to arts. Addressing this concept includes examining strategies for engaging audience, different types of audiences and how the audience–artist relationship affects and influences the arts.

Boundaries - The parameters that define a personality, a culture, an environment, civil law, a skill set or a belief structure. The concept of boundaries can include: themes, issues and concepts; the imagined or physical boundary between performance space and audience; the subversive or provocative nature of the arts; the dividing line between what is real and what is fictional; private and public space; the relationships between characters.

Composition - The intentional organization or contrast, balance, arrangement or awareness of the elements and principles of art for a particular purpose in the creation of art. These may include tension and release, repetition and variety, unison and harmony, sound and silence, theme and variation, and dynamics and energy

Expression - The representation of feelings and emotions, ideas, thoughts, beliefs, values and opinions in the process of visual or physical articulation. It can include signs, symbols, semiotics or any other imagery to capture the artist intention. It is something you do, create or play that shows what you think or feel. Expression facilitates the communication of an idea.

Genre - Different artistic expressions that create a style when grouped by the same use of techniques, in a distinctive manner regarding theme, content or practice.

Innovation - An altered interpretation or the experimentation of ideas, techniques and media. It ensures originality and creativity by new ways of presenting ideas and unusual use of media. The invention of new functions and ways of working.

Interpretation - The understanding of experiences and events mainly through the reference frame of our own reality and contexts. The understanding of the meaning of an artist's creative work and artistic expressions. An artist's distinctive personal version expressed by stylistic individuality

Narrative - A spoken, written or visual account of connected events; a story, which may be fictional or non-fictional. The narrative may manipulate the viewpoint of the audience: bias is persuas

Play - Play can occur in an artistic process or product. In process, play is experimentation— playing with ideas, characters, and techniques. This may be structured or free play. Improvisation is a structured approach to play, which often has the elements of a game and may involve particular rules. In product, play can be a collective creation of a theatre piece or a pre-existing piece of theatre that is authored and documented and that is transformed into live action.

Presentation - The choice of medium, tool, and exhibition or performance space that contributes to audience understanding of the meaning or purpose of the art piece.

Representation - The description, depiction or portrayal of a person, group, place or item in a particular way or as being of a certain nature. An image or likeness.

Role - The development, adoption and portrayal of a character. The performer has to consider how to communicate the character's psychology, emotions and physicality. This is concerned with examining situations, issues, concepts and texts from the perspective of a role. Different approaches, ideas and texts can be used to create and portray a character. The individual roles of instruments can be harmonic, rhythmic or melodic.

Structure - This refers to the shape, timing and organization of the art and the factors that determine how a piece or performance is shaped. It takes into consideration form, function, narrative, melody, harmony, contrast, focus and the construction of smaller parts to create a whole.

Style - A type of art characteristic of a group of people, person or period of time and belonging to a shared tradition or set of conventions. Art conforming to an established form.

Visual Culture - A field of study that generally includes some combination of cultural studies, art history, critical theory, philosophy, and anthropology, by focusing on aspects of culture that rely on visual images.

from *MYP Arts Guide*