EXAMPLES OF CONCEPTS

SCIENCE STRANDS (MPYPH Page 97-98)

Living things: The study of the characteristics, systems and behaviours of humans and other animals, and of plants; the interactions and relationships between and among them, and with their environment.

Related concepts: adaptation, animals, biodiversity, biology, classification, conservation, ecosystems, evolution, genetics, growth, habitat, homeostasis, organism, plants, systems (digestive, nervous, reproductive, respiratory).

Earth and space: The study of planet Earth and its position in the universe, particularly its relationship with the sun; the natural phenomena and systems that shape the planet and the distinctive features that identify it; the infinite and finite resources of the planet.

Related concepts: atmosphere, climate, erosion, evidence, geography, geology, gravity, renewable and non-renewable energy sources, resources, seasons, space, sustainability, systems (solar, water cycle, weather), tectonic plate movement, theory of origin.

Materials and matter: The study of the properties, behaviours and uses of materials, both natural and human-made; the origins of human-made materials and how they are manipulated to suit a purpose.

Related concepts: changes of state, chemical and physical changes, conduction and convection, density, gases, liquids, properties and uses of materials, solids, structures, sustainability.

Forces and energy: The study of energy, its origins, storage and transfer, and the work it can do; the study of forces; the application of scientific understanding through inventions and machines.

Related concepts: conservation of energy, efficiency, equilibrium, forms of energy (electricity, heat, kinetic, light, potential, sound), magnetism, mechanics, physics, pollution, power, technological advances, transformation of energy.

SOCIAL STUDIES STRANDS (MPYPH Page 106-107)

Human systems and economic activities. The study of how and why people construct organizations and systems; the ways in which people connect locally and globally; the distribution of power and authority.

Related concepts: communications, conflict, cooperation, education, employment, freedom, governments, justice, legislation, production, transportation, truth.

Erickson:

Government Concepts
• Civic life
• Politics
• Limited Government
• Unlimited Government
• Individual Rights
• Common Good
• Citizenship
• Rule of Law
• Constitution
• Shared powers
• Governmental systems
• Constitutional government
• Ideals
• Society

Voluntarism
• Diversity
• Political culture
• Values and principles
• National identity
• Political conflict
• Political action
• Interest groups
• Distributed, shared and limited powers
• Domestic and foreign policy
• Taxation
• Laws, rules, regulations
• Public Agenda
• Nation-states
• Roles, rights and responsibilities
• General Welfare

Economics Concepts
• Needs/wants
• Scarcity
• Goods/Services
• Choice
• Resources
• Value
• Opportunity costs
• Costs/benefits
• Market economy; markets
• Command economy
• Consumers/producers
• Incentives
• Production, consumption and distribution
• Exchange

Trade
• Imports/export
• Labor and labor productivity
• Wages/income
• Money
• Banks; financial institutions
• Specialization
• Supply and demand
• Competition
• Price
• Exchange rate
• Standard of living
• Productivity

Social organization and culture: The study of people, communities, cultures and societies; the ways in which individuals, groups and societies interact with each other.

Related concepts: artifacts, authority, citizenship, communication, conflict, diversity, family, identity, networks, prejudice, religion, rights, roles, traditions.
Continuity and change through time: The study of the relationships between people and events through time; the past, its influences on the present and its implications for the future; people who have shaped the future through their actions.

Related concepts: chronology, civilizations, conflict, discovery, exploration, history, innovation, migration, progress, revolution.

Human and natural environments: The study of the distinctive features that give a place its identity; how people adapt to and alter their environment; how people experience and represent place; the impact of natural disasters on people and the built environment.

Related concepts: amenities, borders (natural, social and political), dependence, geography, impact, landscape, locality, ownership, population, regions, settlements.

Ericskon: Geography Concepts

Macro-concepts:
- Place
- Space
- Region
- Location
- Interaction
- Interdependence

Micro-concepts:
- Physical environment
- Landforms
- Geographical Patterns
- Natural Processes
- Migration
- Population density
- Growth rates

- Cultural landscapes
- Urbanization
- Settlement patterns
- Geographical locations
- Rural/urban
- Natural resources
- Technology
- Natural disasters
- Spatial organization

Resources and the environment: The interaction between people and the environment; the study of how humans allocate and manage resources; the positive and negative effects of this management; the impact of scientific and technological developments on the environment.

Related concepts: conservation, consumption, distribution, ecology, energy, interdependence, pollution, poverty, sustainability, wealth.

PSPE STRANDS (MPYPH Page 117)

Identity: An understanding of our own beliefs, values, attitudes, experiences and feelings and how they shape us; the impact of cultural influences; the recognition of strengths, limitations and challenges as well as the ability to cope successfully with situations of change and adversity; how the learner’s concept of self and feelings of self-worth affect his or her approach to learning and how he or she interacts with others.

Related concepts: autonomy, character, diversity, ethnicity, fulfillment, gender, heritage, image, initiative, perseverance, resilience, self-regulation, sexuality, spirituality, trust.

Active living: An understanding of the factors that contribute to developing and maintaining a balanced, healthy lifestyle; the importance of regular physical activity; the body’s response to exercise; the importance of developing basic motor skills; understanding and developing the body’s potential for movement and expression; the importance of nutrition; understanding the causes and possible prevention of ill health; the promotion of safety; rights and the responsibilities we have to ourselves and others to promote well-being; making informed choices and evaluating consequences, and taking action for healthy living now and in the future.

Related concepts: aesthetics, biomechanics, body control, body form, challenge, competition, energy, flexibility, flow, growth, goal setting, improvement, leisure, mastery, overload, physiology, power, rest, spatial awareness, strength and endurance, stress.

Erickson: space, movement, angle, action/reaction, energy, speed, patterns, cooperation, agility, motion, force/power, behaviors, development, weight transfer

Interactions: An understanding of how an individual interacts with other people, other living things and the wider world; behaviours, rights and responsibilities of individuals in their relationships with others, communities, society and the world around them; the awareness and understanding of similarities and differences; an appreciation of the environment and an understanding of, and commitment to, humankind’s responsibility as custodians of the Earth for future generations.

Related concepts: belonging, citizenship, community, conflict, conformity, control, culture, discrimination, fair play, interdependence, justice, leadership, peace, preservation, reparation, safety, stereotype, team work.
### Examples of Literary Concepts

<table>
<thead>
<tr>
<th>Concepts in Text (Print, film, multimedia, speeches, illustrations)</th>
<th>Reader’s/Listener’s/Viewer’s Craft</th>
<th>Writer’s/Speaker’s Craft</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Power</td>
<td>• Comprehension/Understanding (of text)</td>
<td>• Production (of text)</td>
</tr>
<tr>
<td>• Identity</td>
<td>• Strategies/Skills Directionality</td>
<td>• Voice</td>
</tr>
<tr>
<td>• Survival</td>
<td>• Phonological Awareness, Phonics</td>
<td>• Tone, Mood, Dialect</td>
</tr>
<tr>
<td>• Fear</td>
<td>• Self-regulation</td>
<td>• Organization</td>
</tr>
<tr>
<td>• Inner/outer conflict</td>
<td>• Problem solving</td>
<td>• Transitions</td>
</tr>
<tr>
<td>• Courage</td>
<td>• Metacognition</td>
<td>• Text structure</td>
</tr>
<tr>
<td>• Love</td>
<td>• Self-correction</td>
<td>• Leads, Details</td>
</tr>
<tr>
<td>• Relationships</td>
<td>• Reading rate</td>
<td>• Fluency</td>
</tr>
<tr>
<td>• Loss</td>
<td>• Text language/vocabulary</td>
<td>• Rhythm</td>
</tr>
<tr>
<td>• Friendships</td>
<td>• Inference</td>
<td>• Cadence</td>
</tr>
<tr>
<td>• Caring/Sharing</td>
<td>• Summary</td>
<td>• Flow</td>
</tr>
<tr>
<td>• Jealousy</td>
<td>• Connections</td>
<td>• Writing/speaking conventions</td>
</tr>
<tr>
<td>• Tolerance</td>
<td>• Imagery</td>
<td>• Grammar, Language (formal/informal)</td>
</tr>
<tr>
<td>• Idealism</td>
<td>• Text structures/features</td>
<td>• Mechanics, Format, Word choice/usage</td>
</tr>
<tr>
<td>• Greed</td>
<td>• Background knowledge</td>
<td>• Audience awareness</td>
</tr>
<tr>
<td>• Isolationism</td>
<td>• Purpose</td>
<td>• Persuasive techniques</td>
</tr>
<tr>
<td>• Sacrifice</td>
<td>• Aesthetic pleasure</td>
<td>• Literary devices</td>
</tr>
<tr>
<td>• Compromise</td>
<td>• Information</td>
<td>• Ethnics</td>
</tr>
<tr>
<td>• Control</td>
<td>• Entertainment</td>
<td>• Epigrams</td>
</tr>
<tr>
<td>• Justice</td>
<td>• Explanation</td>
<td>• Alliteration</td>
</tr>
<tr>
<td>• Humanity/Inhumanity</td>
<td>• Research</td>
<td>• Hyperbole</td>
</tr>
<tr>
<td>• Elements of genre</td>
<td>• Response (to text)</td>
<td>• Imagery</td>
</tr>
<tr>
<td></td>
<td>• Discourse protocols</td>
<td>• Allegory</td>
</tr>
<tr>
<td></td>
<td>• Collaboration</td>
<td>• Metaphor</td>
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<td></td>
<td>• Perspective</td>
<td>• Allusion</td>
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<tr>
<td></td>
<td>• Personal reflection</td>
<td>• Figurative language</td>
</tr>
<tr>
<td></td>
<td>• Text evidence</td>
<td>• Simile, Onomatopoeia</td>
</tr>
<tr>
<td></td>
<td>• Cultural understanding</td>
<td>• Symbolism</td>
</tr>
<tr>
<td></td>
<td>• Motivation/appeal</td>
<td>• Writing Process</td>
</tr>
<tr>
<td></td>
<td>• Critiquing Text</td>
<td>• Brainstorm</td>
</tr>
<tr>
<td></td>
<td>• Literary criticism</td>
<td>• Draft, Response, Revision, Publication</td>
</tr>
<tr>
<td></td>
<td>• Evaluation</td>
<td></td>
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<tr>
<td></td>
<td>• Judgment</td>
<td></td>
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<tr>
<td></td>
<td>• Believability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Appreciation/Recognition of author’s craft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relevance</td>
<td></td>
</tr>
</tbody>
</table>

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**Character:** Foil, Protagonist, Antagonist, Confidante, Static Character, Dynamic Character, Flat Character, Stock Character, Round Character

**Communication:** Verbal vs. Nonverbal, Active listening techniques, Appropriate form, Audience, Cultural understanding, Appropriate feedback, Voice, tone, inflection, Vocabulary, Pronunciation

*Lynn Erickson*
THE ARTS

DANCE
Relationships and connection
Dance is a socio-cultural art form in which relationships and collaborations are naturally developed through co-constructive artistic practices. Dance requires sensitivity to and awareness of the actions, ideas, and responses of others to cultural practices and to conventions of particular dance forms.

Invention and creation
Dance creation is a cycle of invention and reinvention. Dance works are created and re-created through the process of manipulating a range of elements, devices, structures, and choreographic devices. To dance is like "dreaming with your feet" (Constanze) where the learner is empowered to create movement based on feeling and on trial and error.

Embodiment and performance
Dance is self-expression through movement, which is felt in heart, body, and mind. Performance is integral to dance as the means to communicate ideas, concepts, stories, and feelings. Existing ideas are challenged and new ideas explored through the process of active reflection.

DRAMA
Macro-Concepts: Character | Movement | Voice | Theme | Design
Micro-Concepts:

<table>
<thead>
<tr>
<th>Character</th>
<th>Movement</th>
<th>Voice</th>
<th>Theme</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Body Position</td>
<td>Tone</td>
<td>Culture</td>
<td>Style</td>
</tr>
<tr>
<td>Personality</td>
<td>Action/Reaction</td>
<td>Pitch</td>
<td>Conflict</td>
<td>Meaning</td>
</tr>
<tr>
<td>Background</td>
<td>Purpose</td>
<td>Size</td>
<td>Time</td>
<td>Mood</td>
</tr>
<tr>
<td>Relationship</td>
<td>Order</td>
<td>Quality</td>
<td>Perspective</td>
<td>Structure</td>
</tr>
<tr>
<td>Conflict</td>
<td>Influence</td>
<td>Diallet</td>
<td>Beliefs/Values</td>
<td>Function</td>
</tr>
<tr>
<td>Change/Growth</td>
<td>Angle</td>
<td>Patterns</td>
<td>Choices</td>
<td>Expression</td>
</tr>
<tr>
<td>Obstacle</td>
<td>Balance</td>
<td>Expression</td>
<td>Influence</td>
<td>Feeling</td>
</tr>
<tr>
<td>Wants/Needs</td>
<td>Timing</td>
<td>Articulation</td>
<td>Diversity</td>
<td>Symbol</td>
</tr>
<tr>
<td>Habits</td>
<td>Space</td>
<td>Patterns</td>
<td>Identity</td>
<td>Realism</td>
</tr>
<tr>
<td>Feeling/Emotion</td>
<td>Logic</td>
<td>Pronunciation</td>
<td>Power</td>
<td>Selective</td>
</tr>
<tr>
<td>Type/Role</td>
<td>Physical</td>
<td>Beat/Pause</td>
<td>Destruction</td>
<td>Realism</td>
</tr>
<tr>
<td>Purpose</td>
<td>Expression</td>
<td>Breathing</td>
<td>Innocence</td>
<td>Setting</td>
</tr>
<tr>
<td>Motivation</td>
<td>Direction Line</td>
<td>Diction</td>
<td>Isolation</td>
<td>Costume</td>
</tr>
</tbody>
</table>

Lynn Erickson

Relationships and connection
Drama is interaction, action, and reaction. Learners work collaboratively with each other, with ideas, with text, with symbols and images, and with technologies, to tell stories, challenge ideas, create, and perform dramatic work. Drama is founded on principles of trust and empathy.

Embodiment and performance
Drama utilises both personal and universal experiences to inform the creative process. Drama expresses ideas, emotions, and stories through body and voice. Dramatic meaning is communicated through the physical. In drama, working in role is central to the notion of embodiment, achieved through research and committed portrayal of characters and their histories.

Reflection, challenge, and transformation
Drama reflects or holds a mirror up to our world. Drama interprets the way in which others interact in past and present cultures. Through the performance and experience of drama, we explore and challenge ideas and perceptions of the world, and of ourselves.

http://seniorsecondary.tki.org.nz/The-arts/Key-concepts/Key-concepts-in-arts-disciplines#visual
MUSIC

Macro Concepts: Aesthetics, Expression, Performance
Micro Concepts: Rhythm, Melody, Harmony, Timbre, Form, Dynamics, Articulation, Tempo, Text, Mood

Music – sound arts

Imagination and connection
The creative processes of music – sound arts require the generation, refinement, and revision of musical and sound ideas through composing and performing, whether individually or collaboratively. Visions of sound are constructed, co-constructed, and re-constructed, creating new sounds and combinations through the use of musical conventions and technologies.

Production and transformation
Through the alchemy of interpreting and transforming sound to symbol and symbol to sound, living worlds of sound are created and re-created. Risk-taking and experimentation develop self-expression and personal identity. As unique and powerful socio-cultural art forms, musical arts act as a catalyst to change people’s ideas and feelings, to add value to their lives, and to build communities.

Inquiry and perspective
Music of the past and present, whether traditional or revolutionary, analogue or digital, acoustic or amplified, and from diverse cultures and contexts, shapes our music of the present and future. Music history and ethnomusicology investigate aesthetics, cultural practices, social and political perspectives, and the formal qualities, elements, and principles of music, music criticism, and music appreciation.

http://seniorsecondary.tki.org.nz/The-arts/Key-concepts/Key-concepts-in-arts-disciplines#visual

VISUAL ARTS

Line, Space, Shape, Form, Texture, Color

Line: width, length, direction, focus, feeling, outline, contour, gesture, implied lines
Space: geometric, organic, positive, negative, static, dynamic
Form: real (3 dimensional), Implied (visual representation)
Texture: real, implied (visual representation)
Value: tint, shade, scale, key, contrast
Color: hue, intensity, value, temperature


Creativity and connection
Creating is a process of engagement. The visual arts are about giving form to ideas and expressions for the purpose of engaging and interacting with self and others. The creative process explores and questions notions of identity and community. Reflection and critique of visual cultures defines us and connect us to our worlds.

Inquiry and production
The process of inquiry is founded on the formation of a problem or question. It is reliant on a responsive process of investigation, critique, evaluation, and synthesis within and through the production of work.

Challenge and invention
The visual arts aim to create contexts where students take risks with their ideas and concepts generated from their interaction with the worlds they live in. They are premised on the notion that instability in terms of knowing or knowledge is a productive space for invention or the creation of the 'new'.

Transformation and empowerment
Creation is a process of transformation – change, conversion, alteration, metamorphis – realised through expression and production. Transformation creates the conditions for empowerment of both individuals and (on a more collective basis) groups or communities.

Art history

Discourse and reflection
Art history explores how art mirrors and communicates the ideas, norms, and conventions and the traditions and customs of societies and cultures, whether of the Renaissance or the twenty-first century. Theory and discourse, terminology, and visual language connect art history to the visual arts and visual culture.

Reaction and change
Art history inquires how artists change art through risk and collaboration. In a cycle of dissonance, invention, and innovation, artists react to institutions, academies, and art movements and challenge them to embody their presence.

Aesthetics and beauty
Art history investigates and questions changing notions of taste and beauty, the canon of fine art, and the formal qualities, elements, and principles of art, art criticism, and art appreciation.

**Pluralism and flux**
Art history teachers might have the opportunity to diverge occasionally from the curriculum to broaden student horizons and experience. Teachers model inquiry by introducing concepts of flux, change, transition and transformation, dissonance, and action and reaction in art. Recent and contemporary art might echo threads from the past. Change is a mechanism and flux is a condition of our era.

[http://seniorsecondary.tki.org.nz/The-arts/Key-concepts/Key-concepts-in-arts-disciplines#visual](http://seniorsecondary.tki.org.nz/The-arts/Key-concepts/Key-concepts-in-arts-disciplines#visual)

**Mathematics Concepts:** Whole Numbers, Place Value, Number Representations, Patterns, Number Grids, Money, Symbols, Decimal Point, Related Addition/Subtraction Facts, Fact Families, Mathematical Models, Standard Units, Non-Standard Units, Estimation, Converting Units, Units of Measure, Rational Numbers, Positive Integers, Common Factors, Common Multiples, Proper Factor, Factor Pair, Square Numbers, Prime, Composite, Expressions, Independent/Dependent, Quantities, Functional Relationships, Domain/Range, Patterns and Sequences, Linear Functions, Variables and Symbols, Algebraic Expressions, Order of Operations, Distributive Property, Coordinate Plane, Graphs, Linear Parent Functions, Scatter Plots