

**Anchor Lutheran School**  
Assessment Guide



*Once a Dolphin, Always a Dolphin!*

Mission Statement

*A Christ centered community focused on the growth of the whole child by partnering with families to provide an inclusive environment where children flourish academically, spiritually, socially, and emotionally.*

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## Assessment Guidance:

All subjects must assess each of the subject criteria once per semester. Each criteria is assessed using the subject-specific rubrics or an alternative school approved rubric or marking scheme that reflect a 1-8 scale.

<b>Level of Attainment</b>	<b>Criteria Point</b>	<b>Grade</b>
N/A	Not Assessed	F
Needs Improvement	1	F
Needs Improvement	2	F
Developing	3	D
Developing	4	C
Proficient	5	B
Proficient	6	A-
Mastered	7	A
Mastered	8	A+

A total of all four criteria determines the level of attainment for the semester. The following chart are guidelines for final marks.

<b>Level of Attainment</b>	<b>Total Criteria Points</b>	<b>Grade</b>
Needs Improvement	1-5	F
Needs Improvement	6-9	F
Developing	10-14	D
Developing	15-18	C
Proficient	19-23	B
Proficient	24-27	A-
Mastered	28-31	A
Mastered	32	A+

## What is assessment?

- Assessment can mean many different things.
- In education, assessment has often been divided into formative (assessment for learning) and summative (assessment of learning). There is also “assessment as learning”.
- Assessment must be designed carefully to meet the purposes its results are used for. An excellent formative test may be very poor for measuring summatively.
- Assessment can influence teaching practices and must be designed so any “backwash effect” is positive.

“Assessment” can mean any of the different ways in which student achievement can be gathered and evaluated. Common types of assessments include tests, examinations, extended practical work, projects, portfolios and oral work. Sometimes, assessments are carried out over a prolonged period, and at other times they take place over a few hours. Assessments will sometimes be judged by the student’s teacher, while other times they are evaluated by an external examiner. You will notice that we have used the terms evaluated and judged rather than talking about marking or grading. This is because there is an important distinction between these two concepts which is explored later.

Anchor employs a range of assessment tools, such as essays, research, written assignments, oral interviews, scientific and mathematical investigations, fieldwork projects and artistic performances spread over different subjects and completed by candidates at various times under various conditions during their course.

## **Formative, summative and assessment as learning—why are we doing assessment?**

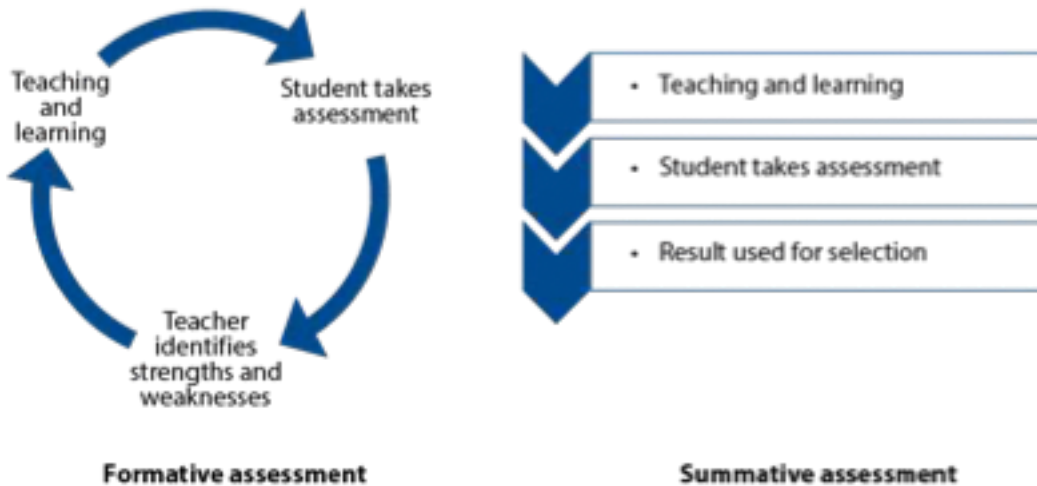
Assessment can be used for a variety of different purposes. The intended purpose for a given assessment will have a major impact on how it is designed. Traditionally, there have been two broad reasons for doing assessment: formative and summative.

For formative assessment, the aim is to provide feedback to teachers and their students on the nature of students' strengths and weaknesses, and to help develop their capabilities. Types of assessment such as direct interaction, for example a discussion, between teacher and student are particularly helpful here.

Vygotsky (1962) describes the teacher as being seen as a supporter rather than a director of learning and so should make use of assessment tasks and instruments that help the student work in what he refers to as the “zone of development”. This is the range of achievement between what the student can do on their own, and what the student can do with the support of the teacher.

This concept of the notion of “scaffolding” was formed by Wood et al (1976), where the teacher provides the scaffold for the construction of learning but only the student can do the constructing. The intention of the teacher must be to set formative assessments that are at just the right level of challenge for the student, and to keep adjusting that level as the student progresses.

In contrast, summative assessment focuses on measuring **what** the student can do, typically to demonstrate the completion of a training program and/or readiness to progress to the next stage of education. While formative assessment is interested in **why** a student does something, summative assessment wants to know whether they did the **correct** thing. While this may seem less useful than the why question, consider the different purpose of summative assessment, which is to make a judgment about the candidate, not to inform future teaching.



In formative assessment, it is more important to identify correctly the knowledge, skills and understanding that students have not yet developed, rather than to measure accurately the level of each student’s achievement. This balance between the student’s attainment and the quality of feedback is reversed in summative assessment, where the outcomes of the assessment will be used to make decisions about the student, often around competitive selection for employment or educational opportunities, but also to support further teaching.

Formative assessment has the most direct link to the way students learn, and is sometimes called assessment *for* learning while summative assessment is sometimes referred to as assessment *of* learning. This underestimates the major impact of summative assessment on what is actually learned in the classroom. All assessment should support appropriate learning. Summative assessment is not just an activity conducted after learning has taken place, but should be designed to have an integrated role in teaching and learning.

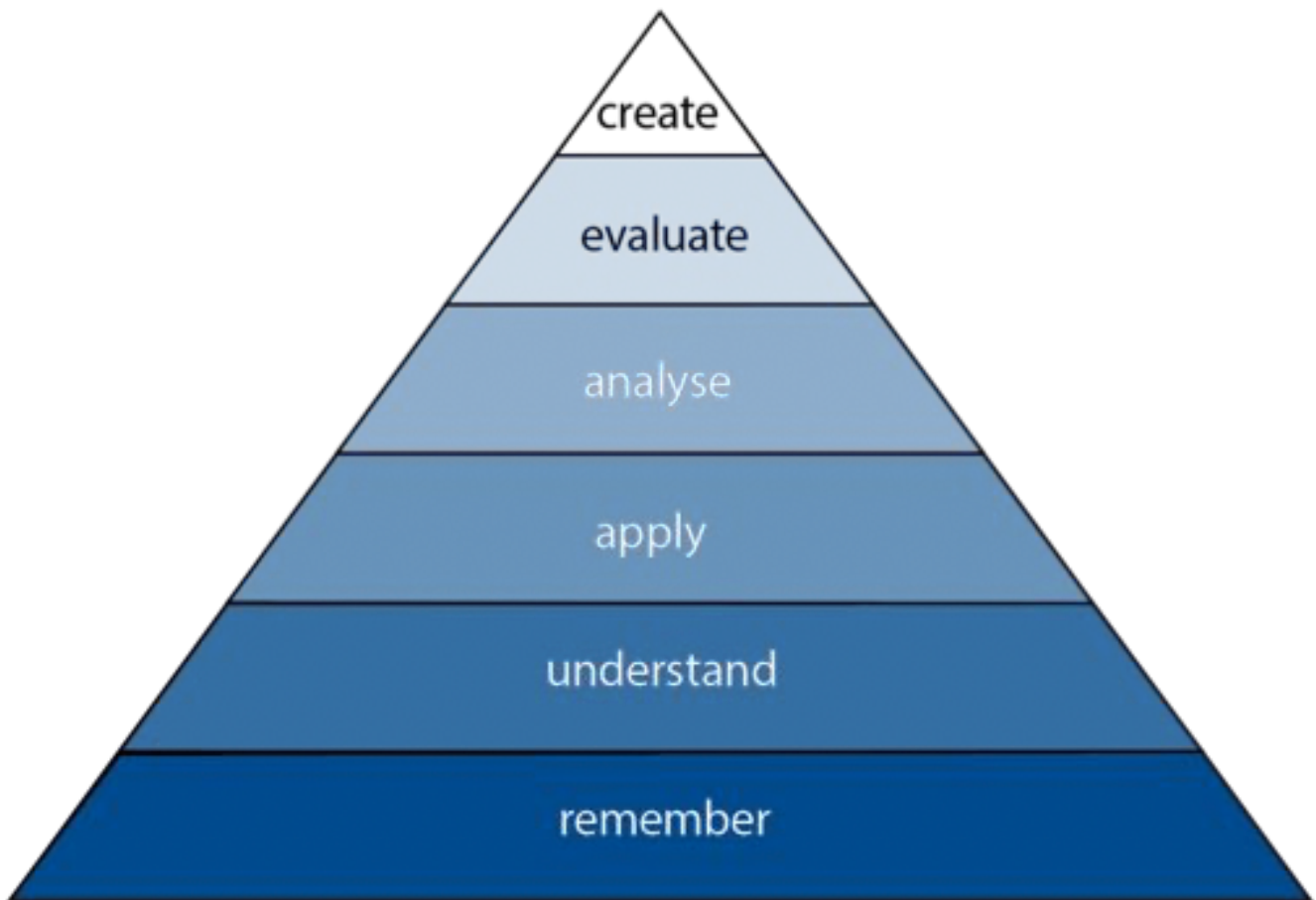
Anchor follows a constructivist approach to learning which offers an active role for the student and also recognizes the importance of context to effective learning (Murphy, 1999). If assessment is to support effective teaching and learning, then it must be designed around this constructivist learning theory. For more research relating to this concept see Black (1999); Shepard (1992); Wood (1998); and Lambert and Lines (2000).

## Marks and grades are not the same thing

An important aspect of carrying out, and using, summative assessments of student is to understand the difference between marking their work and grading their work.

- In marking, a student is given credit for the work they have produced against a mark scheme or similar framework. This is an indication of the degree of the assessment task they got right. The mark itself has no other meaning.
- In deciding a grade, the teacher is making a judgment on the quality of the candidate's work against a defined standard which will take into account the difficulty of the task as well as the proportion of the task that was completed. The grade therefore has some meaning or relevance and is usually intended to be comparable with performances on other assessments.

**Approach to Assessment:** Approach to assessment depends on the relative importance placed on different priorities, and the purpose of the assessment. At Anchor, the underlying principle is to test what is important rather than judge as important what we can test. Anchor seeks to have a positive backwash effect on teaching and learning through assessment. In general, assessments should include a range of tasks and include the opportunity for more in depth classroom-based activities as well as examinations. While there are lots of technical details about what validity for an assessment means, at its heart the definition should be that it is a good evaluation of the goals of the assessment. This needs to be balanced against all the other considerations such as reliability and student workload. It is important to realize that it is difficult for any single approach to be successful in delivering every possible priority. In particular, good assessment design is different for summative and formative assessment. Expanding on this principle, Anchor's views on what makes good assessment can be summarized as: supporting curricular goals, using a range of assessment tasks, and considering wider student competencies and higher-order thinking skills.



The ability of our assessments to recognize and reward a student's performance in these skills is essential if they are going to be meaningful. Tests which only reward the recall of knowledge, concepts and routine techniques are not always fit for purpose within the goals of an Anchor education.

# INQUIRY BASED CONCEPTS

<h2>Key Concepts</h2> <p>A concept is a big idea—a principle or conception that is enduring, the significance of which goes beyond aspects such as particular origins, subject matter or place in time (Wiggins and McTighe 1998).</p>			
<p><b>Communities</b></p> <p>Communities are groups that exist in proximity defined by space, time or relationship. Communities include, for example, groups of people sharing particular characteristics, beliefs or values as well as groups of interdependent organisms living together in a specific habitat.</p>	<p><b>Time, space and place</b></p> <p>The intrinsically linked concept of time, space and place refers to the absolute or relative position of people, objects and ideas. Time, place and space focuses on how we construct and use our understanding of location ("where" and "when").</p>	<p><b>Identity</b></p> <p>Identity is the state or fact of being the same. It refers to the particular features that define individuals, groups, things, eras, places, symbols and styles. Identity can be observed, or it can be constructed, asserted and shaped by external and internal influences.</p>	<p><b>Creativity</b></p> <p>Creativity is the process of generating novel ideas and considering existing ideas from new perspectives. Creativity includes the ability to recognize the value of ideas when developing innovative responses to problems; it may be evident in process as well as outcomes, products or solutions.</p>
<p><b>Aesthetics</b></p> <p>Aesthetics deals with the characteristics, creation, meaning and perception of beauty and taste. The study of aesthetics develops skills for the critical appreciation and analysis of art, culture and nature.</p>	<p><b>Systems</b></p> <p>Systems are sets of interacting or interdependent components. Systems provide structure and order in human, natural and built environments. Systems can be static or dynamic, simple or complex.</p>	<p><b>Culture</b></p> <p>Culture encompasses a range of learned and shared beliefs, values, interests, attitudes, products, ways of knowing and patterns of behaviour created by human communities. The concept of culture is dynamic and organic.</p>	<p><b>Change</b></p> <p>Change is a conversion, transformation or movement from one form, state or value to another. Inquiry into the concept of change involves understanding and evaluating causes, processes and consequences.</p>
<p><b>Relationships</b></p> <p>Relationships are the connections and associations between properties, objects, people and ideas—including the human community's connections with the world in which we live.</p>	<p><b>Global interactions</b></p> <p>Global interactions, as a concept, focuses on the connections among individuals and communities, as well as their relationships with built and natural environments, from the perspective of the world as a whole.</p>	<p><b>Communication</b></p> <p>Communication is the exchange or transfer of signals, facts, ideas and symbols. It requires a sender, a message and an intended receiver. Communication involves the activity of conveying information or meaning. Effective communication requires a common "language" (which may be written, spoken or non-verbal).</p>	<p><b>Perspective</b></p> <p>Perspective is the position from which we observe situations, objects, facts, ideas and opinions. Perspective may be associated with individuals, groups, cultures or disciplines. Different perspectives often lead to multiple representations and interpretations.</p>
<p><b>Connections</b></p> <p>Connections are links, bonds and relationships among people, objects, organisms or ideas.</p>	<p><b>Logic</b></p> <p>Logic is a method of reasoning and a system of principles used to build arguments and reach conclusions.</p>	<p><b>Development</b></p> <p>Development is the act or process of growth, progress or evolution, sometimes through iterative improvements.</p>	<p><b>Form</b></p> <p>Form is the shape and underlying structure of an entity or piece of work, including its organization, essential nature and external appearance.</p>

# SUBJECT SPECIFIC CONCEPTS

## LANGUAGE, LITERACY, WRITING AND LITERATURE:

**Key Concepts** - Communication, Connections, Creativity and Perspective

**Related Concepts** - Audience, Imperatives, Character, Context, Genres, Intertextuality, Point of View, Purpose, Self-Expression, Setting, Structure, Style, Theme, Composition, Expression, Meaning, Plot, Voice, Origin, Form, Inference, Symbolism, Metaphor, Schema, Authorship, Imagery, Patterns

## WORLD LANGUAGE

**Key Concepts** - Communication, Connections, Creativity and Culture

**Related Concepts** - Audience, Function, Pronunciation, Context, Conventions, Form, Meaning, Message, Patterns, Purpose, Structure, Word Choice, Composition, Expression, Meaning, Plot, Voice, Origin, Form, Inference, Symbolism, Metaphor, Schema, Authorship, Imagery, Patterns

## **MATHEMATICS:**

**Key Concepts** - Form, Logic and Relationships

**Related Concepts** - Change, Equivalence, Generalization, Justification, Measurement, Model, Pattern, Quantity, Representation, Simplification, Space, System, Addition, Subtraction, Multiplication, Division, Value, Measurement, Equal, Whole, Fraction, Shape, Time, Unit, Order, Variation, Proof

## **SOCIAL STUDIES AND INQUIRY**

**Key Concepts** - Change, Global Interactions, Time, Place and Space, Systems

**Related Concepts General** - Change Over Time, Interdependence, Power, Community, Diversity, Culture, Equity, Leadership, Rights and Responsibilities, Peace and Conflict, Identity, Supply and Demand, Resources, Location, Democracy, Collaboration, Economy, Colonization, Work, Diversity, Freedom, Oppression, Migration, Citizenship, Consumption, Ritual, Celebration, Continuity, Tradition, Justice, Revolution

**Related Concepts Economics** - Choice, Consumption, Equity, Globalization, Growth, Model, Poverty, Power, Resources, Scarcity, Sustainability, Trade

**Related Concepts Geography** - Causality, Culture, Disparity, Diversity, Globalization, Management and Intervention, Networks, Patterns and Trends, Power, Processes, Scale, Sustainability

**Related Concepts History** - Causality, Civilization, Conflict, Cooperation, Culture, Governance, Identity, Ideology, Innovation and Revolution, Interdependence, Perspective, Significance

**Related Concepts Psychology** - Behavior, Bond, Cognition, Consciousness, Development, Disorder, Group, Learning, Mental Health, Mind, Symptoms, Unconsciousness

**Related Concepts Government** - Authority, Citizenship, Conflict, Cooperation, Globalization, Government, Ideologies, Integration, Interdependence, Leadership, Power, Rights

## **SCIENCES AND INQUIRY:**

**Key Concepts** - Change, Relationships, Systems

**Related Concepts General** - Systems, Change, Life and Living, Variables, Cycles, Energy, Diversity, Habitat, Structure and Function, Matter, Survival, Force, Design, Technology, Adaptation, Natural, Manufactured, Ethics, Sustainability, Diversity, Organism, Evidence, Design, Variable, Measurement, Properties, Interdependence, Causation

**Related Concepts Biology** - Balance, Environment, Transformation, Consequences, Energy, Evidence, Form, Function, Interaction, Models, Movement, Patterns

**Related Concepts in Chemistry** - Balance, Conditions, Transfer, Consequences, Energy, Evidence, Form, Function, Interaction, Models, Movement, Patterns

**Related Concepts in Physics** - Development, Environment, Transformation, Consequences, Energy, Evidence, Form, Function, Interaction, Models, Movement, Patterns

## **ARTS:**

**Key Concepts** - Aesthetic, Change, Communication and Identity

**Related Concept General** - Symmetry, Form, Imagination, Structure, Creativity, Abstraction, Expression, Performance, Perspective, Process, Product, Balance, Line, Dynamics, Composition, Pattern, Audience, Movement, Design

**Related Concepts Visual arts** - Audience, Boundaries, Composition, Expression, Genre, Innovation, Interpretation, Narrative, Presentation, Representation, Style, Visual, Culture

**Related Concepts Performing Arts** - Audience, Boundaries, Composition, Expression, Genre, Innovation, Interpretation, Narrative, Play, Presentation, Role, Structure

## **PHYSICAL AND HEALTH EDUCATION:**

**Key Concepts** - Change, Communication, Development and Relationships

**Related Concepts** - Adaptation, Balance, Choice, Energy, Environment, Function, Interaction, Movement, Perspectives, Refinement, Space, Systems, Growth, Relationships, Responsibility, Resilience, Conflict, Identity, Wellbeing, Nutrition, Fitness, Morals, Values, Beliefs, Achievement, Lifestyle, Trends, Safety, Spirituality, Leisure, Balance

## **DESIGN AND STEAM:**

**Key Concepts** - Communities, Communication, Development and Systems

**Related Concepts** - Adaptation, Collaboration, Ergonomics, Evaluation, Form, Function, Innovation, Invention, Markets and Trends, Perspective, Resources, Sustainability

## **THEOLOGY, BIBLE, RELIGION:**

**Key Concepts** - Communication, Identity, Relationships, Connections

**Related Concepts** - Being and becoming, Belief, Causality (cause/consequence), Human Nature, Identity, Knowledge, Liberty, Mind/body, Objectivity/subjectivity, Personality, Values

# **SUBJECT SPECIFIC CRITERIA DEFINED**

## **Writing (Lower School)**

### Criteria A: Organizing text

Students should understand and be able to organize their ideas and opinions using a range of appropriate conventions for different forms and purposes of communication. Students should also recognize the importance of maintaining academic honesty by respecting intellectual property rights and referencing all sources accurately. In order to reach the aims of studying writing students should, as appropriate to the grade level, be able to:

- i. employ organizational structures that serve the context and intention
- ii. organize opinions and ideas in a sustained, coherent and logical manner
- iii. use referencing and formatting tools to create a presentation style suitable to the context and intention.

### Criteria B: Producing text

Students will produce written and spoken text, focusing on the creative process itself and on the understanding of the connection between the creator and his or her audience. In exploring and appreciating new and changing perspectives and ideas, students will develop the ability to make choices aimed at producing texts that affect both the creator and the audience. In order to reach the aims of studying writing, students should, as appropriate to the grade level, be able to:

- i. produce texts that demonstrate insight, imagination and sensitivity while exploring and reflecting critically on new perspectives and ideas arising from personal engagement with the creative process
- ii. make stylistic choices in terms of linguistic, literary and visual devices, demonstrating awareness of impact on an audience
- iii. select relevant details and examples to develop ideas.

### Criteria C: Handwriting

This objective relates to the correct and appropriate use of hand written language. It involves recognizing and using language suitable to the audience and purpose, for example, the language used at home, the language of the classroom, formal and informal exchanges, and social and academic language. When writing the students should, as appropriate to the grade level, apply their understanding of languages to express ideas, values and opinions in creative and meaningful ways accurately.

- i. use written language to communicate with others
- ii. demonstrate accurate use of written language conventions
- iii. organize information in writing
- iv. communicate information accurately

# Literacy (Lower School)

## Criteria A: Listening

Comprehending spoken language presented in multimodal text encompasses aspects of listening and viewing. The process involves the student in interpreting and constructing meaning from spoken and multimodal text to understand how images and other spatial aspects presented with oral text interplay to convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is viewed, and to be aware of opinions, attitudes and cultural references presented in the visual text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, or gain new perspectives and develop empathy, based on what he or she has understood in the text. In order to reach the aims of literacy, as appropriate to the grade level, students should be able to:

- i. demonstrate understanding of explicit and implicit spoken information in multimodal texts
- ii. demonstrate understanding of conventions
- iii. demonstrate understanding of relationships between the various components of the multimodal text

## Criteria B: Reading

Comprehending written language presented with multimodal text encompasses aspects of reading and viewing. It involves the student in constructing meaning and interpreting written, spatial and visual aspects of texts to understand how images presented with written text interplay to convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is read and viewed, and to be aware of opinions, attitudes and cultural references presented in the written text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, gain new perspectives and develop empathy, based on what he or she has understood in the text. In order to reach the aims of literacy, as appropriate to the grade level, students should be able to:

- i. demonstrate understanding of explicit and implicit written information in multimodal texts
- ii. demonstrate understanding of conventions
- iii. demonstrate understanding of relationships between the various components of the multimodal text

## Criteria C: Speaking

In the literacy classroom, students will have opportunities to develop their communication skills by interacting on a range of topics of personal, local and global interest and significance, with the support of spoken, written and visual texts in the target language (multimodal texts). When speaking in the target language, students apply their understanding of linguistic and literary concepts to develop a variety of structures, strategies and techniques with increasing skill and effectiveness. This is the use of the language system, including their use of grammar, pronunciation and vocabulary. In order to reach the aims of literacy, as appropriate to the grade level, students should be able to:

- i. use spoken language to communicate and interact with others
- ii. demonstrate accuracy and fluency in speaking
- iii. communicate clearly and effectively

## Criteria D: Comprehension

Through the study of literacy students are enabled to deconstruct texts in order to identify essential elements and their meaning. Comprehension involves demonstrating an understanding of the creator's choices, the relationships between the various components of a text and between texts, and making inferences about how an audience responds to a text (strand i), as well as the creator's purpose for producing text (strand ii). Students should be able to use the text to support their personal responses and ideas (strand iii). Literacy and critical literacy are essential lifelong skills; engaging with texts requires students to think critically and show awareness of, and an ability to reflect on, different perspectives through their interpretations of the text (strand iv). In order to reach the aims of studying literacy students should, as appropriate to the grade level, be able to:

- iii. Comprehend the content, context, language, structure, technique and style of text(s) and the relationships among texts
- ii. Comprehend the effects of the creator's choices on an audience
- iii. justify opinions and ideas, using examples, explanations and terminology
- iv. evaluate similarities and differences by connecting features across and within genres and texts.

# **Inquiry (Lower School)**

## **Criteria A: Investigating**

In Inquiry, students should, as appropriate to the grade level, be able to:

- i. define a clear goal and learning context for the project, based on personal interests.
- ii. identify prior learning and subject-specific knowledge relevant to the project.
- iii. demonstrate research skills with the appropriate referencing and bibliography.

## **Criteria B: Planning**

In Inquiry, students should, as appropriate to the grade level, be able to:

- i. develop criteria to evaluate the quality of the product/outcome (these are developed as the final product is decided and can be modified as the project continues).
- ii. plan and record the development process of the project (a timeline or detailed plan and well-documented Process Journal is essential).
- iii. demonstrate self-management skills.

## **Criteria C: Taking Action**

In Inquiry, students should, as appropriate to the grade level, be able to:

- i. create a product/outcome in response to the goal, learning context and criteria.
- ii. demonstrate thinking skills.
- iii. demonstrate communication and social skills.

## **Criteria D: Reflecting**

In Inquiry, students should, as appropriate to the grade level, be able to:

- i. evaluate the quality of the product/outcome against their criteria.
- ii. reflect on how completing the project has extended their knowledge and understanding of the topic and the learning context.
- iii. reflect on their development as a Christ-Centered learners through the project. (Includes progress as an inquiring, exploring, self-managed, confident and independent learner. Reference to the Christ-Centered Profile is encouraged.

## **Criteria E: Knowing and Understanding**

Students develop factual and conceptual knowledge about social studies and science concept and ideas. In order to reach the aims of inquiry, students should, as appropriate to the grade level, be able to:

- i. use terminology in context
- ii. demonstrate knowledge and understanding of subject-specific content and concepts through descriptions, explanations and examples.

# Language and Literature (Upper School)

## Criteria A: Analyzing

Through the study of language and literature students are enabled to deconstruct texts in order to identify essential elements and their meaning. Analyzing involves demonstrating an understanding of the creator's choices, the relationships between the various components of a text and between texts, and making inferences about how an audience responds to a text (strand i), as well as the creator's purpose for producing text (strand ii). Students should be able to use the text to support their personal responses and ideas (strand iii). Literacy and critical literacy are essential lifelong skills; engaging with texts requires students to think critically and show awareness of, and an ability to reflect on, different perspectives through their interpretations of the text (strand iv). In order to reach the aims of studying language and literature, students should, as appropriate to the grade level, be able to:

- i. analyze the content, context, language, structure, technique and style of text(s) and the relationships among texts
- ii. analyze the effects of the creator's choices on an audience
- iii. justify opinions and ideas, using examples, explanations and terminology
- iv. evaluate similarities and differences by connecting features across and within genres and texts.

## Criteria B: Organizing

Students should understand and be able to organize their ideas and opinions using a range of appropriate conventions for different forms and purposes of communication. Students should also recognize the importance of maintaining academic honesty by respecting intellectual property rights and referencing all sources accurately. In order to reach the aims of studying language and literature, students should, as appropriate to the grade level, be able to:

- i. employ organizational structures that serve the context and intention
- ii. organize opinions and ideas in a sustained, coherent and logical manner
- iii. use referencing and formatting tools to create a presentation style suitable to the context and intention.

## Criteria C: Producing text

Students will produce written and spoken text, focusing on the creative process itself and on the understanding of the connection between the creator and his or her audience. In exploring and appreciating new and changing perspectives and ideas, students will develop the ability to make choices aimed at producing texts that affect both the creator and the audience. In order to reach the aims of studying language and literature, students should, as appropriate to the grade level, be able to:

- i. produce texts that demonstrate insight, imagination and sensitivity while exploring and reflecting critically on new perspectives and ideas arising from personal engagement with the creative process
- ii. make stylistic choices in terms of linguistic, literary and visual devices, demonstrating awareness of impact on an audience
- iii. select relevant details and examples to develop ideas.

## Criteria D: Using language

Students have opportunities to develop, organize and express themselves and communicate thoughts, ideas and information. They are required to use accurate and varied language that is appropriate to the context and intention. This objective applies to, and must include, written, oral and visual text, as appropriate. In order to reach the aims of studying language and literature, students should, as appropriate to the grade level, be able to:

- i. use appropriate and varied vocabulary, sentence structures and forms of expression
- ii. write and speak in a register and style that serve the context and intention
- iii. use correct grammar, syntax and punctuation
- iv. spell (alphabetic languages), write (character languages) and pronounce with accuracy
- v. use appropriate non-verbal communication techniques.

# Design / STEAM (Whole School)

## Criteria A: Inquiring and analyzing

Students are presented with a design situation, from which they identify a problem that needs to be solved. They analyse the need for a solution and conduct an inquiry into the nature of the problem. In order to reach the aims of design, students should, as appropriate to the grade level, be able to:

- i. explain and justify the need for a solution to a problem for a specified client/target audience
- ii. identify and prioritize the primary and secondary research needed to develop a solution to the problem
- iii. analyze a range of existing products that inspire a solution to the problem
- iv. develop a detailed design brief which summarizes the analysis of relevant research.

## Criteria B: Developing ideas

Students write a detailed specification, which drives the development of a solution. They present the solution. In order to reach the aims of design, students should, as appropriate to the grade level, be able to:

- i. develop a design specification which clearly states the success criteria for the design of a solution
- ii. develop a range of feasible design ideas which can be correctly interpreted by others
- iii. present the final chosen design and justify its selection
- iv. develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

## Criteria C: Creating the solution

Students plan the creation of the chosen solution and follow the plan to create a prototype sufficient for testing and evaluation. In order to reach the aims of design, students should, as appropriate to the grade level, be able to:

- i. construct a logical plan, which describes the efficient use of time and resources, sufficient for peers to be able to follow to create the solution
- ii. demonstrate excellent technical skills when making the solution
- iii. follow the plan to create the solution, which functions as intended
- iv. fully justify changes made to the chosen design and plan when making the solution
- v. present the solution as a whole, either:
  - a. in electronic form, or
  - b. through photographs of the solution from different angles, showing details.

## Criteria D: Evaluating

Students design tests to evaluate the solution, carry out those tests and objectively evaluate its success. Students identify areas where the solution could be improved and explain how their solution will impact on the client or target audience. In order to reach the aims of design, students should, as appropriate to the grade level, be able to:

- i. design detailed and relevant testing methods, which generate data, to measure the success of the solution
- ii. critically evaluate the success of the solution against the design specification
- iii. explain how the solution could be improved
- iv. explain the impact of the solution on the client/target audience.

# World Language (Whole School)

## Criteria A: Listening

Comprehending spoken language presented in multimodal text encompasses aspects of listening and viewing. The process involves the student in interpreting and constructing meaning from spoken and multimodal text to understand how images and other spatial aspects presented with oral text interplay to convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is viewed, and to be aware of opinions, attitudes and cultural references presented in the visual text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, or gain new perspectives and develop empathy, based on what he or she has understood in the text. In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- i. demonstrate understanding of explicit and implicit spoken information in multimodal texts
- ii. demonstrate understanding of conventions
- iii. demonstrate understanding of relationships between the various components of the multimodal text

## Criteria B: Reading

Comprehending written language presented with multimodal text encompasses aspects of reading and viewing. It involves the student in constructing meaning and interpreting written, spatial and visual aspects of texts to understand how images presented with written text interplay to convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is read and viewed, and to be aware of opinions, attitudes and cultural references presented in the written text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, gain new perspectives and develop empathy, based on what he or she has understood in the text.

In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- i. demonstrate understanding of explicit and implicit written information in multimodal texts
- ii. demonstrate understanding of conventions
- iii. demonstrate understanding of relationships between the various components of the multimodal text

## Criteria C: Speaking

In the language acquisition classroom, students will have opportunities to develop their communication skills by interacting on a range of topics of personal, local and global interest and significance, with the support of spoken, written and visual texts in the target language (multimodal texts). When speaking in the target language, students apply their understanding of linguistic and literary concepts to develop a variety of structures, strategies and techniques with increasing skill and effectiveness. This is the use of the language system, including their use of grammar, pronunciation and vocabulary. In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- i. use spoken language to communicate and interact with others
- ii. demonstrate accuracy and fluency in speaking
- iii. communicate clearly and effectively

## Criteria D: Writing

This objective relates to the correct and appropriate use of the written target language. It involves recognizing and using language suitable to the audience and purpose, for example, the language used at home, the language of the classroom, formal and informal exchanges, and social and academic language. When writing in the target language, students apply their understanding of language, form, mode, medium and literary concepts to express ideas, values and opinions in creative and meaningful ways. They develop a variety of structures using strategies (spelling, grammar, plot, character, punctuation, voice, format, audience) and techniques with increasing skill and effectiveness. In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- i. use written language to communicate with others
- ii. demonstrate accurate use of language conventions
- iii. organize information in writing
- iv. communicate information with a sense of audience and purpose.

# Mathematics (Whole School)

## Criteria A. Knowing and understanding

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop skills. This objective assesses the extent to which students can select and apply mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts. This objective requires students to demonstrate knowledge and understanding of the concepts and skills of the four branches in the prescribed framework (number, algebra, geometry and trigonometry, statistics and probability). In order to reach the aims of mathematics, students should, as appropriate to the grade level, be able to:

- i. select appropriate mathematics when solving problems in both familiar and unfamiliar situations
- ii. apply the selected mathematics successfully when solving problems
- iii. solve problems correctly in a variety of contexts.

## Criteria B. Investigating patterns

Investigating patterns allows students to experience the excitement and satisfaction of mathematical discovery. Working through investigations encourages students to become risk-takers, inquirers and critical thinkers. The ability to inquire is invaluable and contributes to lifelong learning. However, teachers should give enough direction to ensure that all students can begin the investigation. In order to reach the aims of mathematics, students should, as appropriate to the grade level, be able to:

- i. select and apply mathematical problem-solving techniques to discover complex patterns
- ii. describe patterns as general rules consistent with findings
- iii. prove, or verify and justify, general rules.

## Criteria C. Communicating

Mathematics provides a powerful and universal language. Students are expected to use appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing. In order to reach the aims of mathematics, students should, as appropriate to the grade level, be able to:

- i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations
- ii. use appropriate forms of mathematical representation to present information
- iii. move between different forms of mathematical representation
- iv. communicate complete, coherent and concise mathematical lines of reasoning
- v. organize information using a logical structure.

## Criteria D. Applying mathematics in real-life contexts

Mathematics should encourage students to see mathematics as a tool for solving problems in an authentic real-life context. Students are expected to transfer theoretical mathematical knowledge into real-world situations and apply appropriate problem-solving strategies, draw valid conclusions and reflect upon their results. In order to reach the aims of mathematics, students should, as appropriate to the grade level, be able to:

- i. identify relevant elements of authentic real-life situations
- ii. select appropriate mathematical strategies when solving authentic real-life situations
- iii. apply the selected mathematical strategies successfully to reach a solution
- iv. justify the degree of accuracy of a solution
- v. justify whether a solution makes sense in the context of the authentic real-life situation.

# Theology / Bible / Religion (Whole School)

## Criteria A. Knowing and understanding

Students develop factual and conceptual knowledge about theology. In order to reach the aims of theology, students should, as appropriate to the grade level, be able to:

- i. use terminology in context
- ii. demonstrate knowledge and understanding of subject-specific content and concepts through descriptions, explanations and examples.

## Criteria B. Investigating

Students develop systematic research skills and processes associated with disciplines in theology. Students develop successful strategies for investigating independently and in collaboration with others. In order to reach the aims of theology, students should, as appropriate to the grade level, be able to:

- i. formulate a clear and focused research question and justify its relevance
- ii. formulate and follow an action plan to investigate a research question
- iii. use research methods to collect and record relevant information
- iv. evaluate the process and results of the investigation.

## Criteria C. Communicating

Students develop skills to organize, document and communicate their learning using a variety of media and presentation formats. In order to reach the aims of theology, students should, as appropriate to the grade level, be able to:

- i. communicate information and ideas using an appropriate style for the audience and purpose
- ii. structure information and ideas in a way that is appropriate to the specified format
- iii. document sources of information using a recognized convention.

## Criteria D. Thinking critically

Students use critical thinking skills to develop and apply their understanding of theology and the process of investigation. In order to reach the aims of theology, students should, as appropriate to the grade level, be able to:

- i. discuss concepts, issues, models, visual representation and theories
- ii. synthesize information to make valid arguments
- iii. analyze and evaluate a range of sources/data in terms of origin and purpose, examining values and limitations
- iv. interpret different perspectives and their implications.

# Physical and Health Education (Whole School)

## Criteria A. Knowing and understanding

Students develop knowledge and understanding about health and physical activity in order to identify and solve problems. In order to reach the aims of physical and health education, students should, as appropriate to the grade level, be able to:

- i. explain physical health education factual, procedural and conceptual knowledge
- ii. apply physical and health education knowledge to analyze issues and solve problems set in familiar and unfamiliar situations
- iii. apply physical and health terminology effectively to communicate understanding.

## Criteria B. Planning for performance

Students through inquiry design, analyze, evaluate and perform a plan in order to improve performance in physical and health education. In order to reach the aims of physical and health education, students should, as appropriate to the grade level, be able to:

- i. design, explain and justify plans to improve physical performance and health
- ii. analyze and evaluate the effectiveness of a plan based on the outcome.

## Criteria C. Applying and performing

Students develop and apply practical skills, techniques, strategies and movement concepts through their participation in a variety of physical activities. In order to reach the aims of physical and health education, students should, as appropriate to the grade level, be able to:

- i. demonstrate and apply a range of skills and techniques effectively
- ii. demonstrate and apply a range of strategies and movement concepts
- iii. analyze and apply information to perform effectively.

## D. Reflecting and improving performance

Students enhance their personal and social development, set goals, take responsible action and reflect on their performance and the performance of others. In order to reach the aims of physical and health education, students should, as appropriate to the grade level, be able to:

- i. explain and demonstrate strategies that enhance interpersonal skills
- ii. develop goals and apply strategies to enhance performance
- iii. analyse and evaluate performance.

# Arts - Drama, Visual, Music, Dance (Whole School)

## Criteria A: Knowing and understanding

Through the study of theorists and practitioners of the arts, students discover the aesthetics of art forms and are able to analyze and communicate in specialized language. Using explicit and tacit knowledge alongside an understanding of the role of the arts in a global context, students inform their work and artistic perspectives. In order to reach the aims of arts, students should, as appropriate to the grade level, be able to:

- i. demonstrate knowledge and understanding of the art form studied, including concepts, processes, and the use of subject-specific terminology
- ii. demonstrate an understanding of the role of the art form in original or displaced contexts
- iii. use acquired knowledge to purposefully inform artistic decisions in the process of creating artwork.

## Criteria B: Developing skills

The acquisition and development of skills provide the opportunity for active participation in the art form and in the process of creating art. Skill application allows students to develop their artistic ideas to a point of realization. The point of realization could take many forms. However, it is recognized as the moment when the student makes a final commitment to his or her artwork by presenting it to an audience. Skills are evident in both process and product. In order to reach the aims of arts, students should, as appropriate to the grade level, be able to:

- i. demonstrate the acquisition and development of the skills and techniques of the art form studied
- ii. demonstrate the application of skills and techniques to create, perform and/or present art.

## Criteria C: Thinking creatively

The arts motivate students to develop curiosity and purposefully explore and challenge boundaries. Thinking creatively encourages students to explore the unfamiliar and experiment in innovative ways to develop their artistic intentions, their processes and their work. Thinking creatively enables students to discover their personal signature and realize their artistic identity. In order to reach the aims of arts, students should, as appropriate to the grade level, be able to:

- i. develop a feasible, clear, imaginative and coherent artistic intention
- ii. demonstrate a range and depth of creative-thinking behaviors
- iii. demonstrate the exploration of ideas to shape artistic intention through to a point of realization.

## Criteria D: Responding

Students should have the opportunity to respond to their world, to their own art and to the art of others. A response can come in many forms; creating art as a response encourages students to make connections and transfer their learning to new settings. Through reflecting on their artistic intention and the impact of their work on an audience and on themselves, students become more aware of their own artistic development and the role that arts play in their lives and in the world. Students learn that the arts may initiate change as well as being a response to change. In order to reach the aims of arts, students should, as appropriate to the grade level, be able to:

- i. construct meaning and transfer learning to new settings
- ii. create an artistic response that intends to reflect or impact on the world around them
- iii. critique the artwork of self and others.

# Science (Upper School)

## Criteria A. Knowing and understanding

Students develop scientific knowledge (facts, ideas, concepts, processes, laws, principles, models and theories) and apply it to solve problems and express scientifically supported judgments. Assessment of this objective must be done using tests or exams. To reach the highest level students must make scientifically supported judgments about the validity and/or quality of the information presented to them. Assessment tasks could include questions dealing with “scientific claims” presented in media articles, or the results and conclusions from experiments carried out by others, or any question that challenges students to analyze and examine the information and allows them to outline arguments about its validity and/or quality using their knowledge and understanding of science. In order to reach the aims of sciences, students should, as appropriate to the grade level, be able to:

- i. explain scientific knowledge
- ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
- iii. analyze and evaluate information to make scientifically supported judgments.

## Criteria B. Inquiring and designing

Intellectual and practical skills are developed through designing, analyzing and performing scientific investigations. Although the scientific method involves a wide variety of approaches, the MYP emphasizes experimental work and scientific inquiry. When students design a scientific investigation they should develop a method that will allow them to collect sufficient data so that the problem or question can be answered. To enable students to design scientific investigations independently, teachers must provide an open-ended problem to investigate. An open-ended problem is one that has several independent variables appropriate for the investigation and has sufficient scope to identify both independent and controlled variables. In order to achieve the highest level for the strand in which students are asked to design a logical, complete and safe method, the student would include only the relevant information, correctly sequenced. In order to reach the aims of sciences, students should, as appropriate to the grade level, be able to:

- i. explain a problem or question to be tested by a scientific investigation
- ii. formulate a testable hypothesis and explain it using scientific reasoning
- iii. explain how to manipulate the variables, and explain how data will be collected
- iv. design scientific investigations.

## Criteria C. Processing and evaluating

Students collect, process and interpret qualitative and/or quantitative data, and explain conclusions that have been appropriately reached. MYP sciences helps students to develop analytical thinking skills, which they can use to evaluate the method and discuss possible improvements or extensions. In order to reach the aims of sciences, students should, as appropriate to the grade level, be able to:

- i. present collected and transformed data
- ii. interpret data and explain results using scientific reasoning
- iii. evaluate the validity of a hypothesis based on the outcome of the scientific investigation
- iv. evaluate the validity of the method
- v. explain improvements or extensions to the method.

## Criteria D. Reflecting on the impacts of science

Students gain global understanding of science by evaluating the implications of scientific developments and their applications to a specific problem or issue. Varied scientific language will be applied in order to demonstrate understanding. Students are expected to become aware of the importance of documenting the work of others when communicating in science. Students must reflect on the implications of using science, interacting with one of the following factors: moral, ethical, social, economic, political, cultural or environmental, as appropriate to the task. The student’s chosen factor may be interrelated with other factors. In order to reach the aims of sciences, students should, as appropriate to the grade level, be able to:

- i. explain the ways in which science is applied and used to address a specific problem or issue
- ii. discuss and evaluate the various implications of the use of science and its application in solving a specific problem or issue
- iii. apply scientific language effectively
- iv. document the work of others and sources of information used.

# Social Studies (Upper School)

## Criteria A. Knowing and understanding

Students develop factual and conceptual knowledge about social studies. In order to reach the aims of social studies, students should, as appropriate to the grade level, be able to:

- i. use terminology in context
- ii. demonstrate knowledge and understanding of subject-specific content and concepts through descriptions, explanations and examples.

## Criteria B. Investigating

Students develop systematic research skills and processes associated with disciplines in the humanities and social sciences. Students develop successful strategies for investigating independently and in collaboration with others. In order to reach the aims of social studies, students should, as appropriate to the grade level, be able to:

- i. formulate a clear and focused research question and justify its relevance
- ii. formulate and follow an action plan to investigate a research question
- iii. use research methods to collect and record relevant information
- iv. evaluate the process and results of the investigation.

## Criteria C. Communicating

Students develop skills to organize, document and communicate their learning using a variety of media and presentation formats. In order to reach the aims of social studies, students should, as appropriate to the grade level, be able to:

- i. communicate information and ideas using an appropriate style for the audience and purpose
- ii. structure information and ideas in a way that is appropriate to the specified format
- iii. document sources of information using a recognized convention.

## Criteria D. Thinking critically

Students use critical thinking skills to develop and apply their understanding of social studies and the process of investigation. In order to reach the aims of social studies, students should, as appropriate to the grade level, be able to:

- i. discuss concepts, issues, models, visual representation and theories
- ii. synthesize information to make valid arguments
- iii. analyze and evaluate a range of sources/data in terms of origin and purpose, examining values and limitations
- iv. interpret different perspectives and their implications.

## **Christian Advisory (Whole School)**

Advisory is a formatively assessed course that partners with theology and projects and leadership to support meeting the requirements of the Anchor mission. Both the Anchor General Learning Targets and Christ-Centered Profile and used as the criteria for the subject.

**GENERAL LEARNING TARGETS** embody what we want all students to know.

**SOLID FOUNDATION OF KNOWLEDGE:** Mastery of basic skills in all academic areas in order to integrate and apply skills in real life situations.

**HIGH LEVEL THINKING:** The ability to expand learning beyond simple knowledge and recall.

**EFFECTIVE COMMUNICATION:** Expressive skills - the processes and skills used to share ideas in verbal and non-verbal forms.

**POSITIVE BEHAVIORS:** Affective and behavioral processes and skills that develop personal responsibility within a learning environment leading to the development of quality products.

**COMMUNITY APPRECIATION:** Affective and behavioral processes and skills that develop an individual's recognition of his or her role and responsibility within the family, the Anchor school community, regional communities, and the global community.

### **CHRIST-CENTERED PROFILE:**

Students reflect on their Christ-centered Profile attributes and attitudes in a supportive and challenging environment:

#### **ACADEMICS**

- Collaborator
- Evaluator
- Inquirer

#### **SPIRITUAL**

- Confident
- Reflective
- Reverent

#### **SOCIAL**

- Communicator
- Courteous
- Empathetic

#### **EMOTIONAL**

- Advocate
- Balanced
- Courageous

# Learning Contexts Defined

<p><b>Identities and Relationships</b> (psychology, sociology, theology, cultural anthropology)</p> <p><b>Explore:</b> identities; beliefs and values; personal, physical, mental, social and spiritual health; relationships including families, friends, communities and cultures; what it means to be human</p>	<p><b>TOPIC EXAMPLES</b></p> <ul style="list-style-type: none"> <li>- cyberbullying</li> <li>- keeping traditions alive</li>   <li>- benefits of exercise</li> <li>- lifestyle choices</li> </ul>
<p><b>Orientation in Space and Time</b> (history, cultural anthropology, archaeology)</p> <p><b>Explore:</b> personal histories; historical events/turning points; discoveries; explorations and migrations of humans; interactions of people with civilizations from local, regional and global perspectives</p>	<p><b>TOPIC EXAMPLES</b></p> <ul style="list-style-type: none"> <li>- immigration patterns</li> <li>- imperialist strategies</li> <li>- impact of scientific discoveries</li> <li>- one family's journey during the Great Migration</li> <li>- Syrian refugee crisis</li> <li>- oral history traditions</li> </ul>
<p><b>Personal and Cultural Expression</b> (art, dance, music, graphic design, interior decoration, architecture, fashion design, tattoo artistry, cosmetology)</p> <p><b>Explore:</b> the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of 'beauty'</p>	<p><b>TOPIC EXAMPLES</b></p> <ul style="list-style-type: none"> <li>- visual art</li> <li>- architecture</li> <li>- performance art (dance, music)</li> <li>- multimedia</li> <li>- games</li> <li>- fashion</li> </ul>
<p><b>Scientific and Technical Innovation</b> (engineering, aviation, construction, genetics, environmental conservation, physical anthropology, physics, biology, astronomy)</p> <p><b>Explore:</b> the natural world and its laws; the interaction between people and the natural world; impact of science and technology on communities and environments; impact of environments on humans; human adaptations and innovation; how humans use their understanding of the natural world</p>	<p><b>TOPIC EXAMPLES</b></p> <ul style="list-style-type: none"> <li>- materials for bicycles</li> <li>- simple machines in daily life</li> <li>- genetic engineering</li> <li>- industrialization</li> <li>- climate change</li> <li>- renewable fuels</li> <li>- city planning</li> <li>- using math to solve crimes (data/profiling)</li> <li>- light and sound energy</li> <li>- space travel/exploration</li> </ul>
<p><b>Globalization and Sustainability</b> (politics, environmental conservation, economics, foreign relations)</p> <p><b>Explore:</b> interconnectedness of human-made systems and communities; relationship between local and global economies; opportunities and tension created by globalization; impact of globalization on the environment and communities</p>	<p><b>TOPIC EXAMPLES</b></p> <ul style="list-style-type: none"> <li>- impact of climate change on developing countries</li> <li>- Greek austerity measures</li> <li>- education policies around the world</li> <li>- NAFTA</li> <li>- Opening relations with Cuba</li> <li>- Joint Comprehensive Plan of Action with Iran</li> </ul>
<p><b>Fairness and Development</b> (counseling, law, politics, economics, education, environmental science)</p> <p><b>Explore:</b> rights and responsibilities; sharing finite resources; access to opportunities; privilege; peace and conflict resolution</p>	<p><b>TOPIC EXAMPLES</b></p> <ul style="list-style-type: none"> <li>- fair trade</li> <li>- open-market economies</li> <li>- economic regulation</li>   <li>- capitalism/socialism</li> <li>- free college tuition</li> <li>- ghettos</li> <li>- public v. private schools</li> <li>- Colorado EPA river contamination</li> <li>- Waukesha water diversion</li> </ul>

# Projects & Leadership (Upper School)

## Criteria A: Investigating

In the Projects and Leadership, students should, as appropriate to the grade level, be able to:

- i. define a clear goal and learning context for the project, based on personal interests.
- ii. identify prior learning and subject-specific knowledge relevant to the project.
- iii. demonstrate research skills with the appropriate referencing and bibliography.

## Criteria B: Planning

In the Projects and Leadership, students should, as appropriate to the grade level, be able to:

- i. develop criteria to evaluate the quality of the product/outcome (these are developed as the final product is decided and can be modified as the project continues).
- ii. plan and record the development process of the project (a timeline or detailed plan and well-documented Process Journal is essential).
- iii. demonstrate self-management skills.

## Criterion C: Taking Action

In the Projects and Leadership, students should, as appropriate to the grade level, be able to:

- i. create a product/outcome in response to the goal, learning context and criteria.
- ii. demonstrate thinking skills.
- iii. demonstrate communication and social skills.

## Criterion D: Reflecting

In the Projects and Leadership, students should, as appropriate to the grade level, be able to:

- i. evaluate the quality of the product/outcome against their criteria.
- ii. reflect on how completing the project has extended their knowledge and understanding of the topic and the global context.
- iii. reflect on their development as a Christ-Centered learners through the project. (Includes progress as an inquiring, exploring, self-managed, confident and independent learner. Reference to the Christ-Centered Profile is encouraged.

# Self-management

## Organization skills

- Keep to class schedules and project deadlines
- Set appropriate management goals and plan strengths to achieve them
- Structure information appropriately in written, oral and visual work
- Arrive to class with the appropriate equipment
- Keep an organized and logical system of information files/notebooks
- Find and select information via different media
- Use different information organizers for different purposes
- Plan strategies to guide your personal project inquiry
- Plan and manage activities to develop a solution or complete a project
- Select and use applications effectively and productively
- Make informed choices to achieve a balance in nutrient, rest, relaxation and exercise

## Affective skills

- Demonstrate persistence and perseverance
- Practise focus and concentration to overcome distractions
- Make informed choices on behaviours and course of action
- Seek out criticism and feedback from others and make informed choices about including it in one's work
- Practise being aware of mind-body connection
- Practise positive thinking
- Practise dealing with disappointment and unmet expectations
- Practise dealing with change
- Practise strategies to prevent and eliminate bullying
- Practise strategies to reduce stress and anxiety

## Reflection skills

- Consider ethical, cultural and environmental implications of issues
- Consider personal relationships to people, ideas and concepts
- Build understanding of personal learning strengths and weaknesses
- Be aware of areas of perceived limitation
- Develop awareness of the process of effective learning
- Analyse one's own and others' thought processes to think about how one thinks and how one learns
- Pause to reflect at different stages in the learning process
- Implement and measure the effectiveness of different learning strategies
- Demonstrate a preparedness to make changes to ineffective learning strategies
- Seek out constructive criticism
- Keep a reflective journal/portfolio of personal learning experiences focused on both process and content
- Create a record of personal learning change and improvement

# Research

## Information literacy skills

- Access information to be informed and inform others
- Find information in different media
- Read critically and for comprehension
- Read a variety of source for information and for pleasure
- Collect research from a variety of print and digital sources
- Collect and verify data
- Make connections between a variety of sources
- Utilize different media to obtain different perspectives
- Utilize appropriate multimedia technology to create effective presentation and representation
  - Reference accurately and construct a bibliography according to recognized conventions
  - Understand and implement intellectual property rights and the value of academic honesty
  - Identify primary and secondary sources
  - Demonstrate awareness of the effects of different modes of information representation and presentation
  - Collect and analyse data to identify solutions and/or make informed decisions
  - Process data and report results

## Media literacy skills

- Evaluate and select information sources and digital tools based on their appropriateness to specific tasks
- Locate, organize, analyse, evaluate, synthesize and efficiently use information from a variety of sources and media
- Use and interpret a range of content-specific terminology
- Underline ways in which images and language interact to convey ideas, values and beliefs
- Identify different points of view
- Demonstrate awareness of different media interpretations of events and ideas, including social media
- Critically analyse various text forms for underlying meaning
- Use a variety of technologies and media platforms to source information including social media and online networks
- Utilize different media to obtain perspectives
- Communicate ideas effectively to multiple audiences using a variety of media and formats
- Actively make connections between different media resources in presentations
- Advocate and practise safe, legal and responsible use of information technology

## Social

### Collaboration skills

- Respect and accept sociocultural difference
- Consider, respect and analyse different opinions, points of view, ideas and preferences
- Be empathetic
- Respect different opinions and the points of view of others
- Delegate and take responsibility as appropriate
- Help others: facilitate the success of others
- Take responsibility for own actions
- Resolve conflicts and work collaboratively with appropriate roles in a team
- Understand when and how to build consensus
- Make decisions based on fairness and equality
- Negotiate goals and limitations with peers and teachers
- Help others when appropriate and encourage contribution from others
- Drive change through an understanding of others and especially of group dynamics

## Communication

### Communication skills

- Use active listening techniques to understand others
- Give and receive appropriate feedback
- Interpret meaning through cultural understanding
- Use a variety of speaking techniques to make meaning clear for different audiences and purposes
- Use appropriate forms of writing for different purposes and audiences
- Use a variety of media to present to an audience
- Interpret non-verbal communication techniques and use them purposefully
- Negotiate ideas and knowledge with peers and teachers
- Interact, collaborate and publish media with peers, experts or others employing a variety of digital environments and media
- Develop cultural understanding and global awareness by engaging with learner of other cultures
- Write for different purposes
- Make effective notes, in class and for studying
- Summarize and transform information
- Use structural writing planners for different academic tasks
- Organize information logically
- Structure information correctly in summaries, essays, reports and presentations

# LEARNING SKILLS

## Thinking

### Critical thinking skills

- Identify problems and develop aims, goals and objectives
- Make inferences and draw conclusions
- Identify gaps in knowledge and formulate key questions
- Consider ideas from other perspectives and points of view
- Develop contrary arguments
- Break down large concepts and projects into component parts and combine parts logically as appropriate
- Formulate provocative and relevant questions and goals
- Plan to achieve goals, including identifying targets and outlining steps
- Consider consequences of events
- Identify obstacles and challenges
- Make logical, reasonable judgments and create arguments to support them
- Design improvement to existing machines, media and technologies
- Identify and define authentic problems and significant questions for investigation
- Use multiple processes and diverse perspectives to explore alternative solutions
- Identify trends and forecast possibilities
- Troubleshoot systems and applications

### Creative thinking skills

- Generate impossible ideas
- Brainstorm and map thoughts to create ideas and questions
- Consider all alternatives
- Consider the seemingly impossible
- Create novel solutions to a problem
- Evaluate solutions to problems
- Make connections between random things
- Consider opposites to renew perspective
- Apply strategies of guesswork
- Generate “what if?” questions
- Transfer and apply existing knowledge to generate new ideas, products or processes
- Utilize old ideas in new ways and combine parts in new ways
- Make intuitive judgments
- Create original works and ideas and visualize alternatives
- Practise imitation of works with a focus on the creative process
- Practise flexible thinking—arguing both sides of an idea or issue
- Practise metaphorical thinking, generating questions and challenging conventions
- Challenge one’s own and others’ assumptions
- Seeing possibilities, problems and challenges positively
- Playing with ideas and experimenting
- Recognizing when an original idea has value and pursuing it

### Transfer skills

- Use your knowledge, understanding and skills across subjects to create products or solutions
- Make connections between learning gained in different subject areas
- Apply skills and knowledge in unfamiliar situations
- Inquire in different contexts to gain a diverse perspective
- Create projects and products using knowledge and skills gained across different subject areas
- Use familiar learning skills with unfamiliar content
- Transfer current knowledge to learning of new technologies
- Demonstrate personal responsibility for lifelong learning
- Change the context of your project to gain different perspectives
- Make decisions

# The Inquiry Learning Cycle



# INQUIRY WITHIN DISCIPLINES

## HUMANITIES

- How and why do people seek homes in new places?
- What is work and why do people do it?
- How does popular culture change over time?
- Where is the past in the present?
- Poverty: whose responsibility?
- How does where we live affect how we live?
- What makes a great leader?
- Who has power?
- Does the past make us who we are?
- Can we belong to more than one culture?
- What makes a good home?
- How can we improve our school/ community?
- Are we the same as other people, or different? In what ways?
- How and why do people explore?
- What makes a great community?
- Why do people belong to groups?
- Why is history worth knowing?
- What legacy will we leave behind?
- Whose history is it?
- How do we know if we weren't there?
- What makes this place unique?
- How and why do we move from place to place?
- How do places change over time?
- What can a map tell us?
- How do we govern ourselves?
- Do we need rules?
- What stands the test of time?
- How and why do we remember/ commemorate events of the past?
- How can I have my say?
- Who should rule and why?
- Why do we have money?
- What does it really cost?

## SCIENCES

- What makes things move?
- What makes the earth work and how can we care for it?
- What lies beneath us and why does it matter?
- Where is the science in cooking?
- What makes a great construction?
- What's it made of and why?
- How do we know it is true?
- What's out there and how do we know?
- How do living things change as they grow?
- How do living things survive in changing environments?
- How does climate affect ecosystems?
- How does science influence sport?
- How could we design the most efficient bicycle?
- How do humans and animals relate?
- How do animals communicate?
- How have different inventions changed the world?
- How does electricity work and how does it impact on our lives?
- How and why does organic matter decompose?
- How do scientists think and work?
- How does the land change?
- Where does it come from and where does it go?
- How are living things connected?
- What natural cycles and systems help keep our planet working?
- What is matter and how does it behave?
- How do our senses help us find out about the world?
- What happens when we mix things?
- How do living things protect themselves?
- How are the earth, sun and moon connected?

## HEALTH & WELLBEING

- How can I care for my body?
- What makes my body work?
- What makes a good friend?
- Why do humans play games and what makes a great game?
- How do humans change over time?
- What makes us happy?
- What does it mean to be fit?
- How safe are we?
- How safe is our school/community?
- How can we make a difference to the lives of others?
- What is a healthy/unhealthy relationship?
- What makes a good pet and why do people have them?
- Why do people eat what they eat?
- How do our choices affect our health?
- Is practice enough for success?
- What does being successful mean?
- What makes a great team?
- How do our body systems work to keep us alive?
- Why do we believe that?
- Can one person make a difference?
- What do people believe and why?
- How are religions the same and different?
- Can conflict be good for relationships?
- How am I connected to my past?
- What's my story?
- How can goal setting improve my health?
- How and where can I seek help?
- How can my talents contribute to the community?
- How can I keep others and myself safe?
- How do people face challenges in their lives?
- How do peoples' lifestyles affect their health?

## INQUIRY WITHIN DISCIPLINES (CONT'D)

### ARTS

- How do people express their identity?
- Can art persuade?
- Do we need art?
- Why and how do people make music?
- Can art build bridges?
- What makes music?
- Can art change our beliefs?
- What can dance teach us about culture?
- What choices do painters, sculptors and composers make?
- What makes good design?
- What does a designer need to think about?
- How and why do we design?
- Does art have power?
- Can art divide?
- Is there bad art?
- How does art change over time?
- What inspires us?
- What is the role of the arts in this community?
- What does it mean to be an artist?
- Where is the science in art?
- How are feelings and art connected?
- How does music heal?
- How is art valued?
- How can art teach us about others?
- What influences an artwork?
- Do artists have a responsibility to their audience?
- How do we make/use art in our everyday lives?
- How can we combine artforms?
- Where is art in nature?

### MATHEMATICS

- How do we measure time?
- What is long?
- What makes a pattern?
- What math do we need to build a cubby house, gymnasium, or racing track?
- How can we measure...?
- What are the shapes in our environment and are shapes important?
- Can numbers lie?
- What do graphs tell us?
- How can we measure change?
- Why do we need mathematical operations?
- What's the value in numbers?
- How do we make a reasonable estimation?
- How does data influence others?
- What is 'equal'?
- What are some different ways to count?
- Why do we need fractions?
- How are the four operations connected?
- What strategies help us solve problems?
- How can we change the shape of a shape?
- What's the world's most useful shape?
- How do we know where we are?
- How can we find patterns?
- How can we tell what time it is?
- When should we multiply, add, subtract or divide?
- Where is the math in our school grounds?
- What, why and how do we buy?
- Where is the math in our music?
- How can you describe a million?

### LANGUAGES

- How do people tell their stories?
- What makes a great poem, song, story or film?
- How do we get our message across?
- What do authors do and what choices do authors make?
- How has communication changed over time?
- Is Shakespeare relevant?
- How are symbols used to communicate meaning?
- Why read fiction?
- Where do words come from?
- How do words make us feel?
- How can words paint a picture?
- How can we use non-fiction to be better researchers?
- How can we create a great non-fiction text?
- Can fiction be true?
- What can fairytales, legends, myths and fables teach us?
- What makes a great speech?
- How can props enhance communication?
- How has social media changed the way we communicate?
- How can the media influence our thinking and decision making?
- How do advertisements persuade us?
- How is French like/not like English?
- How can we have a successful restaurant experience in Japan?
- How can we have a successful public transport experience in Italy?
- How might we get to know others in Indonesia?
- How could we tell people in China about our home country/family/school?

## AN OVERVIEW OF INSTRUCTIONAL STRATEGIES AND RELEVANT APPS FOR USE WITHIN AN INQUIRY CYCLE (CONT'D)

STAGE OF INQUIRY	SAMPLE STRATEGIES RELEVANT TO THIS PHASE
<p><b>FINDING OUT</b></p> <ul style="list-style-type: none"> <li>gathering new information to address the compelling question</li> <li>developing the research skills required</li> <li>learning how to organize and manage the process of finding out</li> <li>sharing experiences for collaborative analysis and reflection</li> <li>stimulating curiosity through new experiences and information</li> <li>learning how to record information gathered in efficient ways</li> </ul>	<ul style="list-style-type: none"> <li>working with/learning from real people in the community with expertise in the field</li> <li>simulations to experience the concept</li> <li>experimenting/trial and error/tinkering</li> <li>observing and recording real events and behaviors (e.g. school ground, community)</li> <li>conducting experiments (long and short term) to gather data</li> <li>composing questions and defining terms</li> <li>listening to, reading and analyzing song lyrics</li> <li>using literature and picture story books to extend experience of the concept</li> <li>viewing videos/film, photos, paintings and other visual texts as resources</li> <li>interviewing a range of people to seek opinions or gather data</li> <li>creating and conducting surveys</li> <li>reading a range of print material (fiction and non-fiction books, pamphlets, maps, charts, etc.) to gather information</li> <li>Skype/Zoom/FaceTime/email/Edmodo etc. – using digital means to connect with experts</li> <li>note taking and other record keeping to document research</li> <li>learning from each other – individual or small-group presentations on an aspect of the inquiry</li> <li>web searches, use of websites, wikis, clips, YouTube, simulations etc.</li> </ul> <p><b>Apps</b></p> <ul style="list-style-type: none"> <li><i>Livebinders</i></li> <li><i>Access my Library</i></li> <li><i>www.nationalgeographic.com</i></li> <li><i>www.edted.com</i></li> <li><i>DuckDuckGo</i></li> <li><i>Infotopia</i></li> <li><i>Kidtopia</i></li> <li><i>Wonderopolis</i></li> <li><i>Mashpedia</i></li> <li><i>Quintura for kids</i></li> <li><i>Search-Cube</i></li> <li><i>SlineKids (20 search engines for kids)</i></li> <li><i>Polldaddy (create surveys and polls)</i></li> <li><i>SurveyMonkey</i></li> <li><i>QR code readers</i></li> <li><i>Podcast/audiobook apps</i></li> <li><i>AppleTV</i></li> </ul>

# AN OVERVIEW OF INSTRUCTIONAL STRATEGIES AND RELEVANT APPS FOR USE WITHIN AN INQUIRY CYCLE

	SAMPLE STRATEGIES RELEVANT TO THIS PHASE
<p><b>TUNING IN</b></p> <ul style="list-style-type: none"> <li>gathering data about students' existing thinking, knowledge, feeling and understanding</li> <li>helping students make connections with the key concept/s</li> <li>providing purpose, big picture and authenticity</li> <li>motivating, exciting, engaging</li> </ul>	<ul style="list-style-type: none"> <li>concept mapping, flow charts, Y charts and other visual organizers</li> <li>true/false statements – sort into what you think now</li> <li>structured brainstorms (e.g. 1–3–6; hot potato)</li> <li>labelled diagrams/drawings, art works</li> <li>listing, bundling key questions</li> <li>structured discussions (e.g. using talk tokens, paired interviews, piggy back brainstorming or round robin brainstorming)</li> <li>using visual texts – analysis/captions/see–think–wonder</li> <li>talk to the picture – what does the picture tell you?</li> <li>writing/speaking about relevant experience</li> <li>interviewing each other (e.g. using a donut strategy)</li> <li>post box – collecting data about the class's prior knowledge</li> <li>sharing objects, photos and other artefacts from home</li> <li>posing problems or challenges associated with this topic – how would we go about solving this now? (compare later)</li> <li>initial definitions (e.g. using think–pair–share)</li> <li>exploring related objects – what do we know about these? How are they linked? (placemat to record thinking)</li> <li>mind maps</li> <li>open-ended play-based learning centres – teacher interaction and observation used to assess prior learning and interests</li> <li>NSEW: need to know, suggestions for finding out, excited about, worried about</li> </ul> <p><b>Apps</b></p> <ul style="list-style-type: none"> <li><i>Poplet</i></li> <li><i>Inspiration</i></li> <li><i>Ideassketch</i></li> <li><i>Mindmash</i></li> <li><i>Mindmeister</i></li> <li><i>Socratic</i></li> <li><i>Picsforlearning</i></li> <li><i>Padlet</i></li> </ul>

## AN OVERVIEW OF INSTRUCTIONAL STRATEGIES AND RELEVANT APPS FOR USE WITHIN AN INQUIRY CYCLE (CONT'D)

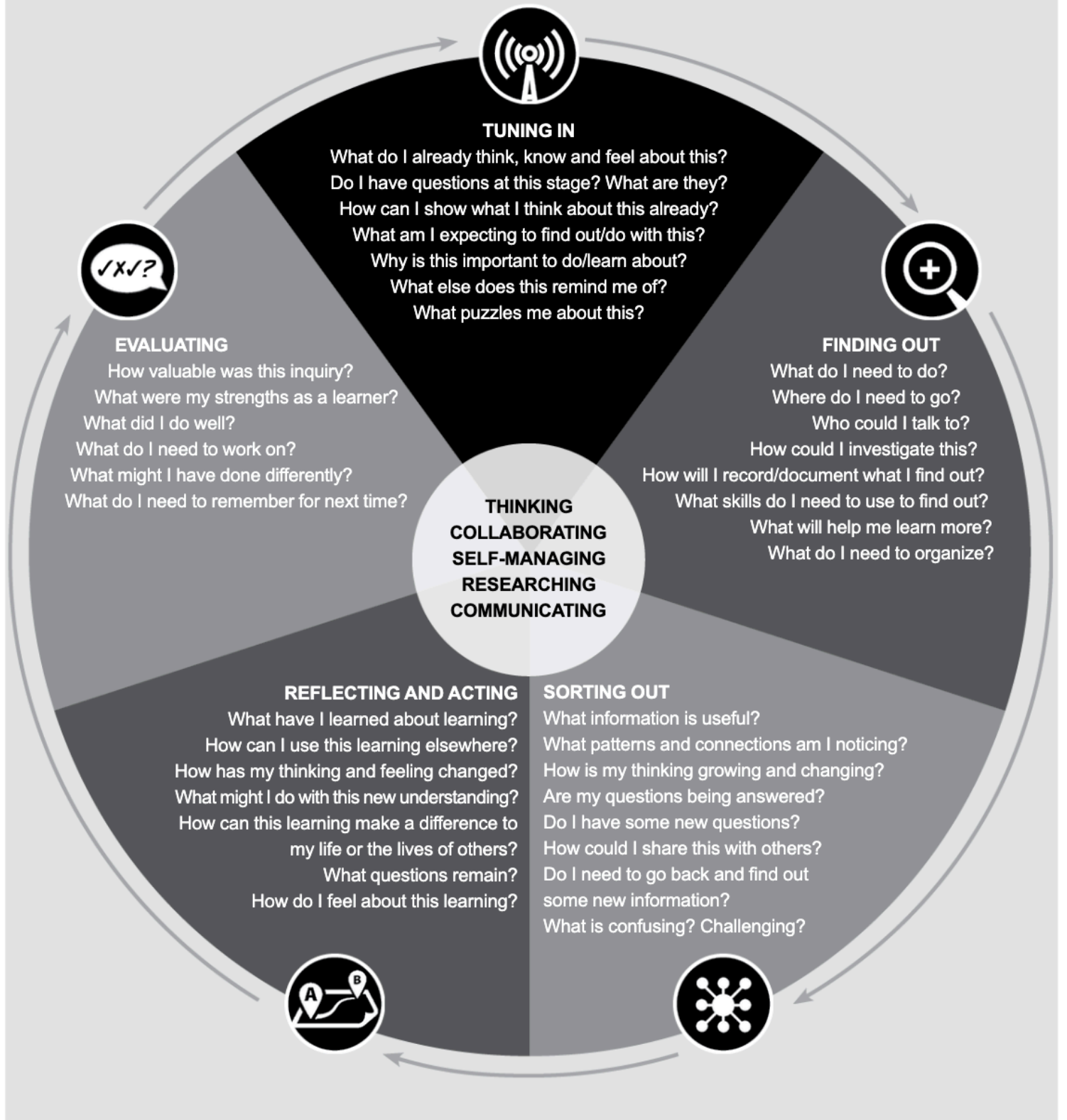
STAGE OF INQUIRY	SAMPLE STRATEGIES RELEVANT TO THIS PHASE																																				
<p><b>SORTING OUT</b></p> <ul style="list-style-type: none"> <li>comprehending – making meaning of the information gathered</li> <li>revealing new thinking and deeper understanding</li> <li>answering questions</li> <li>reviewing/revising early thinking – synthesizing</li> <li>interpreting the information and communicating with others</li> </ul>	<ul style="list-style-type: none"> <li>artistic representations – show what you have found out across all modes of visual arts</li> <li>musical composition – instrumental, vocal, using existing pieces and making a soundscape, raps, chants, songs, podcasts – there are a variety of apps for music making</li> <li>movement and dance – mime, freeze frame, short skits</li> <li>mathematical forms of visual representation, mapping, graphing, Venn diagrams</li> <li>writing across genres</li> <li>reading comprehension tasks, e.g. Text to Self, Text to Text, Text to World</li> <li>data charts and other graphic organizers to help sort and represent thinking about the topic</li> <li>using photos for visual and written records and responses – photo editing tools to add to students' capacity to share understanding</li> <li>drama activities, e.g. role play, conscience game</li> <li>writing statements of generalization</li> <li>consequence wheels</li> <li>de Bono's Thinking Hats</li> <li>revisiting early work (tuning in) – how has our thinking changed?</li> <li>using metaphor and analogy</li> <li>diagrammatic representations of the concept</li> <li>tug for truth</li> <li>matching cause and effect</li> <li>compare and contrast (with related concept)</li> <li>creating digital texts – web pages, Excel, PowerPoint, Publisher, Prezi etc.</li> <li>mind maps and other visual organizers that emphasize sorting and connections</li> <li>true/false statements</li> </ul> <p><b>Apps</b></p> <table border="0"> <tr> <td>• <i>Diigo</i></td> <td>• <i>Piktochart</i></td> <td>• <i>WordPress or Edublogs for blogging</i></td> </tr> <tr> <td>• <i>Evernote</i></td> <td>• <i>Vimeo</i></td> <td>• <i>Voicethread</i></td> </tr> <tr> <td>• <i>Lino</i></td> <td>• <i>iMovie/iMovie trailers</i></td> <td>• <i>Explain Everything</i></td> </tr> <tr> <td>• <i>Photobucket</i></td> <td>• <i>Microsoft Movie Maker</i></td> <td>• <i>Dragon Dictation</i></td> </tr> <tr> <td>• <i>Dropbox</i></td> <td>• <i>Pinnacle Studio</i></td> <td>• <i>Minecraft</i></td> </tr> <tr> <td>• <i>EasyBib</i></td> <td>• <i>Book-making apps (e.g. Book Creator for iPad, Blurb)</i></td> <td>• <i>Airsketch</i></td> </tr> <tr> <td>• <i>Videostar</i></td> <td>• <i>Xtranormal</i></td> <td>• <i>Google SketchUp</i></td> </tr> <tr> <td>• <i>Animoto</i></td> <td></td> <td>• <i>Animation Creation</i></td> </tr> <tr> <td>• <i>Audacity</i></td> <td></td> <td></td> </tr> <tr> <td>• <i>Blogger</i></td> <td></td> <td></td> </tr> <tr> <td>• <i>Balbbberize</i></td> <td></td> <td></td> </tr> <tr> <td>• <i>Glogster</i></td> <td></td> <td></td> </tr> </table>	• <i>Diigo</i>	• <i>Piktochart</i>	• <i>WordPress or Edublogs for blogging</i>	• <i>Evernote</i>	• <i>Vimeo</i>	• <i>Voicethread</i>	• <i>Lino</i>	• <i>iMovie/iMovie trailers</i>	• <i>Explain Everything</i>	• <i>Photobucket</i>	• <i>Microsoft Movie Maker</i>	• <i>Dragon Dictation</i>	• <i>Dropbox</i>	• <i>Pinnacle Studio</i>	• <i>Minecraft</i>	• <i>EasyBib</i>	• <i>Book-making apps (e.g. Book Creator for iPad, Blurb)</i>	• <i>Airsketch</i>	• <i>Videostar</i>	• <i>Xtranormal</i>	• <i>Google SketchUp</i>	• <i>Animoto</i>		• <i>Animation Creation</i>	• <i>Audacity</i>			• <i>Blogger</i>			• <i>Balbbberize</i>			• <i>Glogster</i>		
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# AN OVERVIEW OF INSTRUCTIONAL STRATEGIES AND RELEVANT APPS FOR USE WITHIN AN INQUIRY CYCLE (CONT'D)

STAGE OF INQUIRY	SAMPLE STRATEGIES RELEVANT TO THIS PHASE
<p><b>GOING FURTHER</b></p> <ul style="list-style-type: none"> <li>opportunities for students to pursue questions and interests arising from the journey so far</li> <li>learners to work more independently on their investigations</li> </ul>	<ul style="list-style-type: none"> <li>wonderwall, wonder boxes: following up new lines of inquiry. Creating small interest-based inquiry groups</li> <li>individual and/or small-group contracts with a range of choices for students</li> <li>individualized inquiries</li> <li>alternative 'finding out' experiences – new texts, contrasting experiences</li> <li>research tasks focused on unanswered questions or interests</li> <li>individual or small-group work leading to culminating task</li> <li>learning centers/research centers</li> <li>Jigsaw – expert groups</li> <li>blogging for a real global emphasis</li> <li>Quad Blogging – making links with three other schools from around the world</li> </ul> <p><i>Apps from the previous three stages can be used here.</i></p>
<p><b>REFLECTING AND ACTING</b></p> <ul style="list-style-type: none"> <li>students apply their learning to other contexts – to put the learning to use</li> <li>students reflect on what and how they have learned and set goals for the future</li> <li>assess final understanding and growth in skills</li> </ul>	<ul style="list-style-type: none"> <li>exhibitions of learning to school and community. What and how can we teach others?</li> <li>making or continuing to make models/objects</li> <li>completing design options for a system/structure</li> <li>performances to promote a cause or celebrate learning</li> <li>social or environmental action projects – working with local and global communities to make a difference</li> <li>creating pamphlets and other texts to promote, persuade, encourage and inform</li> <li>personal goal setting and action plans</li> <li>publishing writing to celebrate the inquiry throughout the unit</li> <li>learning logs/research journals/thinking books – various self- and peer-assessment tasks</li> <li>reviewing and responding to questions asked during the inquiry</li> </ul> <p><i>Apps from the sorting out and sharing phase can also be used here.</i></p>

# AN INQUIRY CYCLE FOR STUDENTS

(May support the *Going Further* phase)



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