## Appendix 1: ATL skills framework

The MYP extends IB approaches to learning (ATL) skills categories into 10 developmentally appropriate clusters. This framework provides common ground from which schools can develop their own ATL planning based on MYP units, student needs, and local circumstances and requirements.

ATL skills are often interconnected. Individual skills and skills clusters frequently overlap and may be relevant to more than one skill category.

Some of the key questions to be answered by students with respect to ATL skills include the following.

- What are my present skills in this area and what evidence do I have of my development?
- What skills can I improve?
- What new skills can I learn?

When specific ATL skills become an explicit focus for teaching and learning, students can begin to take responsibility for their own development. Over time, students can identify themselves and their competence in any learning strategy using terms like the following.

- Novice/beginning—students are introduced to the skill, and can watch others performing it (observation)
- Learner/developing—students copy others who use the skill and use the skill with scaffolding and guidance (emulation)
- Practitioner/using—students employ the skill confidently and effectively (demonstration)
- Expert/sharing—students can show others how to use the skill and accurately assess how effectively the skill is used (self-regulation)

A concept-driven curriculum that uses ATL skills effectively enables all students to become stronger, more self-regulated learners.

Communication	
I. Communication skills	
How can students com- municate through inter- action?	Exchanging thoughts, messages and information effectively hrough interaction
	Give and receive meaningful feedback
	Use intercultural understanding to interpret communication
	Use a variety of speaking techniques to communicate with a variety of audiences
	Use appropriate forms of writing for different purposes and audi- ences
	Use a variety of media to communicate with a range of audiences
	Interpret and use effectively modes of non-verbal communication
	Negotiate ideas and knowledge with peers and teachers
	Participate in, and contribute to, digital social media networks

	Collaborate with peers and experts using a variety of digital envi- ronments and media
	Share ideas with multiple audiences using a variety of digital envi- ronments and media
How can students demonstrate communi-	Reading, writing and using language to gather and communicate information
cation through lan- guage?	Read critically and for comprehension
	Read a variety of sources for information and for pleasure
	Make inferences and draw conclusions
	• Use and interpret a range of discipline-specific terms and symbols
	Write for different purposes
	Understand and use mathematical notation
	Paraphrase accurately and concisely
	Preview and skim texts to build understanding
	Take effective notes in class
	Make effective summary notes for studying
	Use a variety of organizers for academic writing tasks
	• Find information for disciplinary and interdisciplinary inquiries, us- ing a variety of media
	Organize and depict information logically
	Structure information in summaries, essays and reports

Social	
II. Collaboration skills	
How can students col- laborate?	<ul> <li>Working effectively with others</li> <li>Use social media networks appropriately to build and develop relationships</li> <li>Practise empathy</li> <li>Delegate and share responsibility for decision-making</li> <li>Help others to succeed</li> </ul>
	<ul> <li>Take responsibility for one's own actions</li> <li>Manage and resolve conflict, and work collaboratively in teams</li> <li>Build consensus</li> <li>Make fair and equitable decisions</li> <li>Listen actively to other perspectives and ideas</li> <li>Negotiate effectively</li> <li>Encourage others to contribute</li> <li>Exercise leadership and take on a variety of roles within groups</li> <li>Give and receive meaningful feedback</li> <li>Advocate for one's own rights and needs</li> </ul>
Self-management	
III. Organization skills	
How can students demonstrate organiza- tion skills?	<ul> <li>Managing time and tasks effectively</li> <li>Plan short- and long-term assignments; meet deadlines</li> <li>Create plans to prepare for summative assessments (examinations and performances)</li> <li>Keep and use a weekly planner for assignments</li> <li>Set goals that are challenging and realistic</li> <li>Plan strategies and take action to achieve personal and academic goals</li> <li>Bring necessary equipment and supplies to class</li> <li>Keep an organized and logical system of information files/notebooks</li> <li>Use appropriate strategies for organizing complex information</li> <li>Understand and use sensory learning preferences (learning styles)</li> <li>Select and use technology effectively and productively</li> </ul>

IV. Affective skills	
How can students man- age their own state of mind?	Managing state of mind
	Mindfulness awareness
	<ul> <li>Practise focus and concentration</li> </ul>
	<ul> <li>Practise strategies to develop mental focus</li> </ul>
	<ul> <li>Practise strategies to overcome distractions</li> </ul>
	<ul> <li>Practise being aware of body–mind connections</li> </ul>
	Perseverance
	<ul> <li>Demonstrate persistence and perseverance</li> </ul>
	<ul> <li>Practise delaying gratification</li> </ul>
	Emotional management
	<ul> <li>Practise strategies to overcome impulsiveness and anger</li> </ul>
	<ul> <li>Practise strategies to prevent and eliminate bullying</li> </ul>
	<ul> <li>Practise strategies to reduce stress and anxiety</li> </ul>
	Self-motivation
	<ul> <li>Practise analysing and attributing causes for failure</li> </ul>
	<ul> <li>Practise managing self-talk</li> </ul>
	<ul> <li>Practise positive thinking</li> </ul>
	Resilience
	<ul> <li>Practise "bouncing back" after adversity, mistakes and fail- ures</li> </ul>
	<ul> <li>Practise "failing well"</li> </ul>
	<ul> <li>Practise dealing with disappointment and unmet expectations</li> </ul>
	<ul> <li>Practise dealing with change</li> </ul>

V. Reflection skills	
How can students be reflective?	(Re)considering the process of learning; choosing and using ATL skills
	Develop new skills, techniques and strategies for effective learn- ing
	<ul> <li>Identify strengths and weaknesses of personal learning strategies (self-assessment)</li> </ul>
	Demonstrate flexibility in the selection and use of learning strate- gies
	Try new ATL skills and evaluate their effectiveness
	Consider content
	– What did I learn about today?
	– What don't I yet understand?
	– What questions do I have now?
	Consider ATL skills development
	<ul> <li>What can I already do?</li> </ul>
	<ul> <li>How can I share my skills to help peers who need more prac- tice?</li> </ul>
	– What will I work on next?
	Consider personal learning strategies
	<ul> <li>What can I do to become a more efficient and effective learner?</li> </ul>
	<ul> <li>How can I become more flexible in my choice of learning strategies?</li> </ul>
	– What factors are important for helping me learn well?
	Focus on the process of creating by imitating the work of others
	Consider ethical, cultural and environmental implications
	Keep a journal to record reflections

VI. Information literacy	skills
How can students	Finding, interpreting, judging and creating information
demonstrate infor-	Collect, record and verify data
mation literacy?	Access information to be informed and inform others
	Make connections between various sources of information
	Understand the benefits and limitations of personal sensory learn ing preferences when accessing, processing and recalling infor- mation
	Use memory techniques to develop long-term memory
	Present information in a variety of formats and platforms
	Collect and analyse data to identify solutions and make informed decisions
	Process data and report results
	Evaluate and select information sources and digital tools based on their appropriateness to specific tasks
	Understand and use technology systems
	Use critical-literacy skills to analyse and interpret media commu- nications
	Understand and implement intellectual property rights
	Create references and citations, use footnotes/endnotes and construct a bibliography according to recognized conventions
	Identify primary and secondary sources
VII. Media literacy skill	S
How can students	Interacting with media to use and create ideas and information
demonstrate media literacy?	<ul> <li>Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media (including digital social media and online networks)</li> </ul>
	Demonstrate awareness of media interpretations of events and ideas (including digital social media)
	Make informed choices about personal viewing experiences
	Understand the impact of media representations and modes of presentation
	Seek a range of perspectives from multiple and varied sources
	Communicate information and ideas effectively to multiple audi- ences using a variety of media and formats
	Compare, contrast and draw connections among (multi)media re sources

Thinking	
VIII. Critical-thinking ski	lls
How can students think critically?	Analysing and evaluating issues and ideas
	Practise observing carefully in order to recognize problems
	<ul> <li>Gather and organize relevant information to formulate an argument</li> </ul>
	Recognize unstated assumptions and bias
	Interpret data
	Evaluate evidence and arguments
	Recognize and evaluate propositions
	Draw reasonable conclusions and generalizations
	Test generalizations and conclusions
	Revise understanding based on new information and evidence
	Evaluate and manage risk
	• Formulate factual, topical, conceptual and debatable questions
	Consider ideas from multiple perspectives
	Develop contrary or opposing arguments
	<ul> <li>Analyse complex concepts and projects into their constituent parts and synthesize them to create new understanding</li> </ul>
	Propose and evaluate a variety of solutions
	Identify obstacles and challenges
	<ul> <li>Use models and simulations to explore complex systems and is- sues</li> </ul>
	Identify trends and forecast possibilities
	Troubleshoot systems and applications
IX. Creative-thinking ski	lls
How can students be creative?	Generating novel ideas and considering new perspectives
creative?	<ul> <li>Use brainstorming and visual diagrams to generate new ideas and inquiries</li> </ul>
	Consider multiple alternatives, including those that might be un- likely or impossible
	Create novel solutions to authentic problems
	<ul> <li>Make unexpected or unusual connections between objects and/or ideas</li> </ul>
	<ul> <li>Design improvements to existing machines, media and technolo- gies</li> </ul>
	Design new machines, media and technologies

	<ul> <li>Make guesses, ask "what if" questions and generate testable hypotheses</li> </ul>
	Apply existing knowledge to generate new ideas, products or pro- cesses
	Create original works and ideas; use existing works and ideas in new ways
	Practise flexible thinking—develop multiple opposing, contradic- tory and complementary arguments
	Practise visible thinking strategies and techniques
	Generate metaphors and analogies
X. Transfer skills	
How can students	Using skills and knowledge in multiple contexts
transfer skills and knowledge across disci-	Use effective learning strategies in subject groups and disciplines
plines and subject groups?	Apply skills and knowledge in unfamiliar situations
	Inquire in different contexts to gain a different perspective
	<ul> <li>Compare conceptual understanding across multiple subject groups and disciplines</li> </ul>
	Make connections between subject groups and disciplines
	Combine knowledge, understanding and skills to create products or solutions
	Transfer current knowledge to learning of new technologies
	Change the context of an inquiry to gain different perspectives