

Approaches to learning (ATL) across the IB continuum

Through approaches to learning in IB programmes, students develop skills that have relevance across the curriculum that help them “learn how to learn”. Approaches to learning skills can be learned and taught, improved with practice and developed incrementally. They provide a solid foundation for learning independently and with others. ATL skills help students prepare for, and demonstrate learning through, meaningful assessment. They provide a common language that students and teachers can use to reflect on and articulate on the process of learning.

Approaches to learning are most powerful when teachers plan and students engage with them in connection with significant and relevant content knowledge in order to develop transferable understanding.

Approaches to learning in the MYP

The focus of approaches to learning in the MYP is on helping students to develop the self-knowledge and skills they need to enjoy a lifetime of learning. ATL skills empower students to succeed in meeting the challenging objectives of MYP subject groups and prepare them for further success in rigorous academic programmes like the IB Diploma Programme and the IB Career Related Certificate. Ultimately, ATL skills help to prepare students for responsible participation in local and global communities.

In the MYP, ATL encompasses both general and discipline-specific skills. Many ATL skills are applicable to all MYP subject groups; these general ‘tools for learning’ can be tailored to meet the specific needs of students and schools. In order to develop ATL skills that facilitate effective and efficient learning, students need models, clear expectations, developmental benchmarks (or targets), and multiple opportunities to practice. While ATL are not formally assessed in the MYP, they contribute to students’ achievement in all subject groups. Teachers should provide students with regular, specific feedback on the development of ATL skills through learning engagements and that provide formative assessment.

Every MYP unit identifies approaches to learning skills that students will develop through their inquiry and demonstrate in the unit’s summative assessment.

The most effective way to develop approaches to learning is through ongoing, process-focused disciplinary and interdisciplinary teaching and learning. Teachers can use key and related concepts along with global contexts as vehicles for teaching effective learning strategies. Likewise, approaches to learning can be powerful tools for exploring significant content. This dual focus (content and process) promotes student engagement, deep understanding, transfer of skills and academic success.

All teachers in MYP schools are responsible for integrating and explicitly teaching ATL skills.

Over time, students should develop clear and sophisticated understandings of how they learn best and how they can evaluate the effectiveness of their learning. This kind of self-regulated (independent and autonomous) learning helps students:

- reflect purposefully on their learning (metacognition)
- understand the diversity of human learning needs
- evaluate and provide evidence of their learning
- meet MYP subject group aims and objectives
- share responsibility for creating productive, cooperative and safe learning environments
- develop the confidence to try new strategies and explore new concepts and contexts for learning
- prepare for further study and responsible participation in local and global communities.

ATL skills and learning theory

Considered as a whole and at the highest proficiency, MYP approaches to learning represent the skills that students need in order to become self-regulated, intrinsically motivated learners. MYP ATL skills reflect “dynamic, internally controlled . . . processes that positively influence a student’s tendency to approach, engage with, expend effort on, and persist in learning tasks in an ongoing, self directed manner” (McCombs, 1984).

Using the vocabulary of learning theory, ATL skills can be described as

- cognitive- learner-initiated use and practice of active information-processing and retrieval strategies
- affective (social and emotional)- self-management of mood, motivation, interpersonal relationships and attitudes toward learning
- metacognitive- awareness, understanding and control of personal learning processes.

ATL skills are informed by and support the development of the attributes of the IB learner profile.

MYP ATL skills framework

The MYP extends IB ATL skills categories into ten developmentally-appropriate clusters. This framework provides common ground from which schools can develop their own frameworks based on MYP units, including local circumstances and requirements

MYP schools are responsible for developing an approaches to learning planning chart for all years of the programme.

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

IB ATL skill categories	MYP skill clusters
Communication	I Communication
Social	II Collaboration
Self Management	III Organisation
	IV Affective
	V Reflection
Research	VI Information Literacy
	VII Media Literacy
Thinking	VIII Critical Thinking
	IX Creativity and Innovation
	X Transfer

Developing student responsibility for ATL

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

- 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 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 these:

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

Important MYP ATL skills

Skills are sets of strategies and techniques that people use to achieve a specific purpose. Skills can be practiced and continually improved. The skills in this table represent some of the important approaches to learning that students should develop in the MP. Individual skills can be relevant for more than one skill cluster.

Schools can use this list to build their own frameworks for developing students who are empowered as self-directed learners, and teachers in all subjects groups can draw from these skills to identify approaches to learning that students will develop in MYP units. Students and teachers can also work to identify and develop additional important general and discipline-specific approaches to learning skills.

COMMUNICATION	
I Communication skills	Exchanging thoughts, messages and information effectively through interaction
Inquiry focus: How can students communicate through 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 audiences
	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 environments and media
	Share ideas with multiple audiences using a variety of digital environments and media
How can students demonstrate communication through language?	Reading, writing and using language to gather and communicate information
	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 and 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, using a variety of media
	Organize and depict information logically
	Structure information in summaries, essays and reports
	Understand and implement intellectual property
	Create references and citations, use footnotes/endnotes and construct a bibliography according to recognized conventions
	Identify primary and secondary sources
SOCIAL	
II Collaboration skills	Working effectively with others
How can students collaborate?	Use social media networks appropriately to build and develop relationships
	Practice empathy
	Delegate and share responsibility for decision-making
	Help others to succeed
	Take responsibility for one's own actions

	Manage and resolve conflict and work collaboratively in teams	
	Build consensus	
	Make fair and equitable decisions	
	Listen actively to other perspectives and ideas	
	Negotiate effectively	
	Encourage others to contribute	
	Exercise leadership and take on a variety of roles within groups	
	Give and receive meaningful feedback	
	Advocate for your own rights and needs	
SELF MANAGEMENT		
III Organization skills	Managing time and tasks effectively	
How can students demonstrate organisation skills?	Plan short and long term assignments; meet deadlines	
	Create plans to prepare for summative assessments (examinations and performances)	
	Keep and use a weekly planner for assignments	
	Set goals that challenging and realistic	
	Plan strategies and take action to achieve personal and academic goals	
	Bring necessary equipment and supplies to class	
	Keep an organized and logical system of information files/notebooks	
	Use appropriate strategies for organizing complex information	
	Understand and use sensory learning preferences (learning styles)	
	Select and use technology effectively and productively	
IV Affective skills	Managing state of mind	
How can students manage their own state of mind?	Mindfulness	Practice focus and concentration Practice strategies to develop mental quiet Practice strategies to overcome distractions
	Perseverance	Demonstrate persistence and perseverance Practice delaying gratification

	Emotional management	Practice strategies to overcome impulsiveness and anger Practice strategies to prevent and eliminate bullying Practice strategies to reduce anxiety Practice being aware of body-mind connections
	Self-motivation	Practice analyzing and attributing causes for failure Practice managing self-talk Practice positive thinking
	Resilience	Practice 'bouncing back' after adversity, mistakes and failures Practice 'failing well' Practice dealing with disappointment and unmet expectations Practice dealing with change
V Reflection	(Re-)considering what has been learned; choosing and using ATL skills	
How can students be reflective?	Develop new skills, techniques and strategies for effective learning	
	Identify strengths and weaknesses of personal learning strategies (self-assessment)	
	Demonstrate flexibility in the selection and use of learning strategies	
	Try new approaches to learning 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 (What can already do? How can I share my skills to help peers who need more practice? What will I work on next?)	
	Consider personal learning strategies (How efficiently and effectively am I learning? What can I do to become a more efficient and effective learner? How can my understanding of personal strengths and weaknesses help me develop my own strategies for learning?)	
	Consider ethical, cultural and environmental implications	
	Keep a journal to record reflections	
RESEARCH		
VI Information literacy	Finding, interpreting, judging and creating information	
How can students demonstrate information literacy?	Collect, record and verify data	
	Access information to be informed and inform others	
	Make connections between various sources of information	
	Understand the benefits and limitations of personal sensory learning preferences when accessing, processing and recalling information	

	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/or 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 analyze and interpret media communications
VII Media literacy	Interacting with <u>media</u> to use and create ideas and information
How can students demonstrate media literacy?	Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media [including digital social media and online networks]
	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 audiences using a variety of media and formats
	Compare, contrast and draw connections among (multi)media resources
THINKING	
VIII Critical thinking	Analyzing and evaluating issues and ideas
How can students think critically?	Practice observing carefully in order to recognize problems
	Gather and organize relevant information to formulate an argument
	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 debateable questions

	Consider ideas from multiple perspectives
	Develop contrary or opposing arguments
	Analyse complex concepts and projects into their constituent parts and synthesize them to create new understanding
	Propose and evaluate a variety of solutions
	Identify obstacles and challenges
	Use models and simulations to explore complex systems and issues
	Identify trends and forecast possibilities
	Troubleshoot systems and applications
IX Creativity and innovation	The skills of invention – developing things and ideas that never existed before
How can students be creative?	Use brainstorming and mind mapping to generate new ideas and inquiries
	Consider multiple alternatives, including those that might be unlikely or impossible
	Create novel solutions to complex problems
	Use lateral thinking to make unexpected connections
	Design improvements to existing machines, media and technologies
	Design new machines, media and technologies
	Make guesses and generate testable hypotheses
	Apply existing knowledge to generate new ideas, products or processes
	Create original works and ideas
	Practice flexible thinking – arguing both sides of an argument
	Use visible thinking strategies and techniques
	Propose metaphors and analogies
X Transfer	Utilising skills and knowledge in multiple contexts
How can students transfer skills and knowledge among disciplines and subject groups?	Utilize effective learning strategies in subject groups and disciplines
	Apply skills and knowledge in unfamiliar situations
	Inquire in different contexts to gain a different perspective
	Compare conceptual understanding across multiple subject groups and disciplines
	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 (6d)

	Change the context of an inquiry to gain different perspectives
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ISTE (International Society for Technology in Education) <http://www.iste.org/standards>

Partnership for 21st Century Skills

OECD DeSeCo (Definition and Selection of Competencies) <http://www.oecd.org/edu/skills-beyond-school/>

Andain and Murphy, *Creating lifelong learners: Challenges for education in the 21st century* (2d Ed., 2012)