



Thinking Skills













APPROACHES TO LEARNING

The Approaches to Learning is crucial for the inquiry learning process in context with the transdisciplinary themes. They are grounded in the belief that learning how to learn is fundamental to our student's education that aims to support students of all ages to become self-regulated learners who know how to research, to think critically and creatively, communicate properly, demonstrate social skills, and pursue their aspirations with balanced self-management.

How can students think critically?

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|  | Practise observing carefully in order to recognize problems |  | Evaluate and manage risk |
|  | Gather and organize relevant information to formulate an argument |  | Formulate factual, topical, conceptual and debatable questions |
|  | Recognize unstated assumptions and bias |  | Consider ideas from multiple perspectives |
|  | Interpret data |  | Develop contrary or opposing arguments |
|  | Evaluate evidence and arguments |  | Analyse complex concepts and projects into their constituent parts and synthesize them to create new understanding |
|  | Recognize and evaluate propositions |  | Propose and evaluate a variety of solutions |
|  | Draw reasonable conclusions and generalizations |  | Identify obstacles and challenges |
|  | Test generalizations and conclusions |  | Use models and simulations to explore complex systems and issues |
|  | Revise understanding based on new information and evidence | | |

How can students be reflective?

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|  | Use brainstorming and visual diagrams to generate new ideas and inquiries |  | Make guesses, ask "what if" questions and generate testable hypotheses |
|  | Consider multiple alternatives, including those that might be unlikely or impossible |  | Apply existing knowledge to generate new ideas, products or processes |
|  | Create novel solutions to authentic problems |  | Create original works and ideas; use existing works and ideas in new ways |
|  | Make unexpected or unusual connections between objects and/or ideas |  | Practise flexible thinking—develop multiple opposing, contradictory and complementary arguments |
|  | Design improvements to existing machines, media and technologies |  | Practise visible thinking strategies and techniques |
|  | Design new machines, media and technologies |  | Generate metaphors and analogies |

How can students be reflective?

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|  | Use effective learning strategies in subject groups and disciplines |  | Make connections between subject groups and disciplines |
|  | Apply skills and knowledge in unfamiliar situations |  | Combine knowledge, understanding and skills to create products or solutions |
|  | Inquire in different contexts to gain a different perspective |  | Transfer current knowledge to learning of new technologies |
|  | Compare conceptual understanding across multiple subject groups and disciplines |  | Change the context of an inquiry to gain different perspectives |