Approaches to learning

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

Approaches to learning

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

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Approaches to learning

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

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Approaches to learning

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

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