



Climbing Day in BC - Curricular Connections

Building Student Success: BC's New Curriculum - Climbing

From a young age, children climb. They climb on chairs, up trees, up staircases, up and down hills, on tables, on anything and everything. Anything may provide a pretext for climbing because it is an activity that stimulates creativity. Climbing also contributes to a child's overall development in terms of understanding their bodies and it is always of interest to them because of its infinite variety and the possibilities it offers to their imagination. In addition, climbing is something now widely practiced in our society. With the advent of the climbing wall, teachers can offer their students the chance of doing an activity that they may not have been able to do anywhere else. Indeed, when one realizes the extraordinary potential for powerful learning experiences, especially with respect to taking responsibility for oneself and accepting personal challenges, it is easy to see that climbing has a place within the field of education.

Indoor sport climbing has experienced a dramatic change from an original outdoor hobby to today's indoor profession. In the 1960's simple concrete indoor walls with single, unmovable holds were created to accommodate outdoor climbers desire to train during winter months. Indoor climbing took on a new "look" when the French reinvented the indoor climbing wall by developing and utilizing interchangeable holds allowing for various climbing routes to be established and most importantly "altered" to create something entirely new. Climbing walls today are now seen both indoors and outdoors, permanently fixed and transportable, hosting national and international competitions and, with its inclusion in the 2020 Olympic Games, climbing as a sport has grown exponentially.

Teachers involved in climbing confirm that indoor climbing allows them the chance to challenge their students by having them think about the "next step" thus leading the student to progressively take responsibility for their own security. Climbing is a unique and stimulating pedagogical tool highly important to the creation of a myriad of learning activities and pedagogical experiences. The approach to climbing increases the recognition of an individual's strengths and weaknesses without necessarily focusing on competition.

The Journal of Physical Education backs the philosophy that "through participation and practice, a climber will develop a unique combination of fitness that includes strength and power, endurance, flexibility, and mental tenacity" (Mittelstaedt). The BC Ministry of Education supports and encourages the goals in the activity of sport climbing, which are found within our existing physical education programs.

"Climbing enhances one's problem-solving skills while trying to negotiate through routes. Following and/or choosing routes (paths) on a climbing wall, the climber will strengthen their mind, both halves of the brain, by using logic, spatial awareness, problem solving skills, ingenuity and imagination, all under physical exertion." (McNeal).

Climbing encourages a shift in the philosophy from exclusively teaching about competitive sports and game skills to improving health and well-being of participants. Given that the province of British Columbia is committed to improving the overall health and well-being of students, the use of climbing facilities goes a long way to meeting the mandate that *“healthy children are better able to learn”* and that *“schools can directly influence children’s health.”*

Students can, through climbing, directly experience opportunities to bring together and integrate physical, emotional, social, intellectual and aesthetic aspects of their personalities. Teachers recognize the ability of climbing to build personal stamina, flexibility, muscle strength, self-discipline and confidence, as well as interesting students in a sport not easily accessible for most. Climbing undoubtedly has become an exciting alternate source for reaching higher levels of physical fitness. The physical, social and mental benefits include the following:

- Muscular endurance is the body’s ability to generate sub-maximal force over an extended period of time. Climbing is a sport composed of multiple and various small moves never requiring a singular maximal burst. With experience in climbing, an individual will gradually acquire the ability to achieve more and more moves along a wall.
- Climbing is non-competitive. Students do not compete against each other; rather they compete only with themselves as they attempt to solve “one more problem” or get “one more hold.”
- Climbing, unlike most sports in school settings, is co-ed. No gender differences exist as both male and female students participate on an equal footing.
- Flexibility refers to the range of motion at a joint. Constant stretching and reaching during climbing requires the body to be able to maneuver over distance. Well-rounded fitness and training programs including flexibility exercises reduce one’s risk of injury.
- Muscular strength is the amount of weight the body can move through gravity in one maximal force. A climber moves and adjusts with and against gravity with every move along the wall. Transferring and manipulating the body weight adds resistance to the muscles building the strength in an inviting and enjoyable fashion, without mundane lifting, allowing for dynamic “crux,” (a push-up-style or pull-up-style move) which places great demands on the leg muscles.
- Mental fitness will increase the person’s self-discipline and confidence by his or her remaining calm and not listening to the “inner voice” bowing out under the extreme and strenuous situation in completing challenging routes, expanding the climber’s power to use logic, spatial awareness, problem-solving skills, ingenuity and imagination.
- Cardio respiratory fitness means the heart, lungs, and blood vessels are able to supply oxygen to the muscles in use, while removing carbon dioxide from the system. New competitions in climbing stress speed, a highly entertaining and possible change to regular movements.

How climbing can be used to support BC's new curriculum

Educational context of climbing:

Climbing as a stand-alone course or as an addition to an existing school program is designed to further develop student's physical literacy and problem solving skills. Climbing introduces a variety of advanced movement and training techniques designed to build strength and coordination as well as risk management and injury prevention. Students work individually and collaboratively as they develop personalized training plans, nutrition plans, and learn technique.

Big Ideas from BC Physical Education Curriculum that can be met through climbing

- Daily participation in different types of physical activity influences our physical literacy and personal health and fitness goals. (PHE8/9)
- Lifelong participation in physical activity has many benefits and is an essential part of a healthy lifestyle.(PHE8/9)
- Healthy choices influence our physical, emotional, and mental well-being.(PHE8/9/10)
- Healthy relationships can help us lead rewarding and fulfilling lives.(PHE8/9)
- Advocating for the health and well-being of others connects us to our community.(PHE8/9)
- Understanding our strengths, weaknesses, and personal preferences helps us plan and achieve our goals.(PHE10)
- Trying a variety of physical activities can increase the likelihood that we will be active throughout our lives.(PHE10)
- Personal fitness can be maintained and improved through regular participation in physical activities. (PHE10)
- Physical activity is an important part of overall health and well-being. (PHE11/12)
- Finding enjoyable recreational activities can motivate people to participate more regularly in physical activity.(PHE11/12)
- Safety and injury prevention practices allow lifelong participation in physical activities.(PHE11/12)
- Our personal fitness can be maintained or enhanced through participation in a variety of activities at different intensity levels. (PHE11/12)
- Knowing how our bodies move and function helps us stay safe during exercise.(PHE11/12)
- Following proper training guidelines and techniques can help us reach our health and fitness goals.(PHE11/12)
- Making healthy choices can help us reach our health and fitness goals. (PHE11/12)

Curricular Competencies from BC Physical Education Curriculum that can be met through climbing

Physical literacy

- Develop, refine, and apply fundamental movement skills in a variety of physical activities and environments
- Develop and apply a variety of movement concepts and strategies in different physical activities
- Apply methods of monitoring and adjusting exertion levels in physical activity
- Develop and demonstrate safety, fair play, and leadership in physical activities
- Identify and describe preferred types of physical activity

Healthy and active living

- Participate daily in physical activity designed to enhance and maintain health components of fitness
- Describe how students' participation in physical activities at school, at home, and in the community can influence their health and fitness
- Propose healthy choices that support lifelong health and well-being
- Identify factors that influence health messages from a variety of sources, and analyze their influence on behaviour
- Identify and apply strategies to pursue personal healthy-living goals
- Reflect on outcomes of personal healthy-living goals and assess strategies used

Social and community health

- Propose strategies for avoiding and/or responding to potentially unsafe, abusive, or exploitative situations
- Analyze strategies for responding to discrimination, stereotyping, and bullying
- Propose strategies for developing and maintaining healthy relationships
- Create strategies for promoting the health and well-being of the school and community

Mental well-being

- Analyze strategies for promoting mental well-being, for self and others
- Assess and evaluate strategies for managing problems related to mental well-being and substance use, for others
- Create and evaluate strategies for managing physical, emotional, and social changes during puberty and adolescence
- Explore and describe factors that shape personal identities, including social and cultural factors

Learning Resources:

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Wescott, W. (1992). Fitness benefits of rock climbing. *American Fitness*, 10(4), 28-31.

Further References:

1. The Rock Climber's Training Manual: A Guide to Continuous Improvement, Michael Anderson PhD, Mark L. Anderson, Fixed Pin Publishing.
2. Climbing Gym Instructor Technical Manual: A Reference Guide for Professional Indoor-climbing Instructors, Brian Spear, Association of Canadian Mountain Guides.
3. Mountaineering: The Freedom of the Hills, Ronald C. Eng editor, The Mountaineers Books.
4. Nanaimo Crags: Rock Climbing Guide, Ryan Kurytnik, KKP Nanaimo.
5. Crest Creek Rock Climbs: A Heathen's Guide to Vancouver Island's Coolest Climbing Area, Chris Barner, Ahren Rankin, Heathens and Wild Isle Publications.
6. Leave No Trace: A Guide to the New Wilderness Etiquette, Annette McGivney, The Mountaineers Books.