

APPENDIX I: GLOSSARY

The terms in this glossary are listed in alphabetical order under the following categories:

- Physical Education
- Health Education
- Human Sexuality

Physical Education

Abduction—an action that moves away from the axis or midline of the body.

Acceleration—the rate of change in velocity (speeding up and slowing down), usually measured in metres per second per second (m/s²).

Adduction—an action that moves towards the axis or the midline of the body.

Aerobic activity—playing and exercising in activities (e.g., running, playing tag, jumping, swimming) that make the heart, lungs, and muscles work harder and faster.

Agility—“the ability to shift the body in different directions quickly and efficiently” (Kirchner and Fishburne 701).

Asymmetrical—having each side different.

Atrophy—a reduction in size.

Balance—the ability to control or stabilize your equilibrium while moving (**dynamic** balance) or staying still (**static** balance).

Blood pressure—the amount of force or pressure put forth by the heart to pump blood. When blood pressure is recorded, two figures are given, with one number over the other (e.g., 126/82). The upper number (126) represents the systolic pressure (the pushing phase) and the lower number (82) represents the diastolic pressure (relaxing phase) (Bender *et al.* 180).

Body awareness—includes awareness of

- **body parts** (e.g., arms, legs, elbows, knees, head)
- **body shapes** (e.g., curled, stretched, narrow, wide, twisted, symmetrical, asymmetrical)
- **body actions** (e.g., flex, extend, rotate, swing, push, pull)

Body composition—the ratio of body fat to lean body tissue (how much of the body is fat and how much is muscle).

Body shapes:

- **Curled**—body parts pulled together in a close, round shape.
- **Stretched**—body parts or whole body extended.
- **Narrow**—arms or legs extended close together to resemble a long, straight shape.

- **Wide**—arms or legs stretched out away from the trunk to make a large shape.
- **Twisted**—part of the body in a fixed position and another part moved away from the fixed part; limbs wrapped around each other, intertwined.
- **Symmetrical**—each side of body the same.
- **Asymmetrical**—each side of body different.

Body types:

- **Mesomorphs**—have heavy bone and muscle development with broad shoulders, thick forearms, and heavy wrists and fingers.
- **Endomorphs**—have roundness and softness of the body, small facial features, and slender wrists and ankles.
- **Ectomorphs**—have long arms and legs, a delicate bone structure, and narrow fingers and toes.

Cardiovascular endurance—the ability of the heart, blood vessels, and lungs to provide the working muscles with adequate oxygen during prolonged activity (also called **aerobic endurance** or **capacity**).

Cool-down—the last phase of a workout, which allows the heart rate to slow down gradually and allows time for the blood to leave the large muscles to prevent possible dizziness or nausea.

Coordination—“the ability to use your eyes and ears to determine and direct the smooth movement of your body” (e.g., hands, feet, arms, head) (Rainey and Murray 395).

Cross training—a workout style that incorporates a variety of cardiovascular, muscular strength, and muscular endurance activities or exercises.

Deking—using a fake movement (e.g., moving the head and shoulders one way and the body another way) to deceive another player.

Dodging—moving quickly to change direction, pathway, and/or speed to evade a player or an object.

Dynamic balance—controlled body position and posture while in motion.

Elasticity—the ability of tissue to return to its original shape following a contraction or extension.

Extension—the increase of the angle formed by the bones of a joint.

“Everyday” foods—foods that *Canada’s Food Guide to Healthy Eating* (Health Canada) identifies as nutritious and should be eaten every day.

Flexibility—the range and ease of movement of a joint (limited by bone, muscles, ligaments, tendons, and the bone-joint capsule).

Flexion—the decrease of the angle formed by the bones in a joint.

Force—a push or a pull that causes motion, usually measured in newtons (N) (Coaching Association of Canada 5–10).

Frequency—indicates how often an exercise or activity is being performed.

Functional capacity—performance level based on individual abilities and capabilities with respect to factors such as shortness of breath, keeping within the target heart-rate zone.

Functional use—promotes actual, real-world, purposeful participation. It respects individual variation and diversity in style and/or performance. A functional approach to instruction and assessment encourages the use of basic skills in a variety of forms, to solve tasks, challenges, and problems, in a way that is meaningful to individuals and society.

Funnelling—directing someone towards a certain direction or cornering someone to limit his or her movement or pathway.

General space—the overall play area available in which to move.

Grapevine—a step towards the left side (count 1), a step placing the right foot behind the left foot (count 2), a step left to the side (count 3), and then a step placing the right foot in front of or beside the left foot (count 4).

Gravity—“a force that exerts a downward pull on people and objects” (Coaching Association of Canada 5–5).

- **Centre of gravity**—“a balance point—the imaginary point at which a person’s or object’s mass may be thought of as being concentrated” (Coaching Association of Canada 5–5).
- **Line of gravity**—“an imaginary line passing straight through the centre of gravity to the ground” (Coaching Association of Canada 5–5).

Gymnastic movement patterns:

- **Landings**—safely taking weight on feet and/or hands to prevent injuries in falls.
- **Statics**—positions, including static balances, hangs (suspension activities whereby the shoulders are below the point of suspension), and supports (any stable position that is not a hang).
- **Springs**—the rapid displacement of the body by either the legs (e.g., jump, leap) or arms (e.g., pop, rebound).
- **Rotations**—any turn or spin about one of the three primary axes: longitudinal (e.g., twists, pivots), transverse (e.g., rolls, somersaults), or horizontal (e.g., cartwheels).
- **Locomotion**—the movement of the body using the various forms of transport (e.g., walking, hopping, skipping).
- **Swings**—rotation around an axis outside the body, evolving from hangs or supports.

Health-related fitness components—include cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

Heart rate—the number of beats of the heart, normally expressed as beats per minute.

Hypertrophy—an increase in size.

Intensity—indicates how hard an exercise or activity is performed in terms of force and energy expenditure.

Leap—taking off with one foot with a period of suspension, then landing on the other foot. Ensure that students leap at appropriate heights and stay on balls of feet when landing.

Levels in space:

- **High**—above the shoulders.
- **Medium**—between the shoulders and knees.
- **Low**—below the knees.

Ligament—a connective tissue that connects bone to bone.

Light activity—is considered less than 50% of the individual's age-related maximum heart rate (e.g., stretching exercises, walking casually, golf, playing catch) (U.S. Department of Health and Human Services *et al.* 32).

Mass—a measure of resistance to linear motion, usually measured in kilograms. Greater mass means greater resistance to motion.

Match—students are side by side and perform the same movements at the same time.

Mature level of skill development—the mature phase represents a period when all aspects of a skill can be used and applied to a variety of situations. The characteristics of a mature phase include rhythmical movement, controlled and coordinated movement, and consistent performance.

Maximum heart rate—the highest number of times the heart can contract in one minute, which can be reached at maximum effort. Maximum heart rate changes with age.

Mirror—students face each other and perform the same movements, like looking in a mirror.

Moderate activity—is 50% to 70% of the individual's age-related maximum heart rate (e.g., brisk walking, skating, bike riding, low-impact aerobic dancing, recreational swimming) (U.S. Department of Health and Human Services *et al.* 32).

Muscle—consists of muscle fibres made up of contractile cells. The three types of muscles are: cardiac, skeletal, and visceral (Bender *et al.* 360).

Muscle tone—a partial sustained contraction of a skeletal muscle, which is important for posture.

Muscular endurance—the ability of a muscle or group of muscles to exert force over an extended period of time without incurring fatigue.

Muscular strength—the amount of force that can be exerted by a muscle or group of muscles in a single effort.

Newton’s laws of motion:

- **Newton’s first law of motion**—states that “every body will remain in a state of constant motion or rest unless acted upon by an outside force” (Coaching Association of Canada 5–11).
- **Newton’s second law of motion**—states that “the applied force is proportional to the resulting acceleration; that is, the greater the applied force, the greater the resulting acceleration—providing mass is constant” (Coaching Association of Canada 5–11).
- **Newton’s third law of motion**—states that for “every action force, there is an equal and opposite reaction force” (Coaching Association of Canada 5–11).

“Other” foods—foods that are not included in the four food groups but can be served with them in meals and snacks, according to *Canada’s Food Guide to Healthy Eating* (Health Canada). Some “other” foods are high in fat, sugar, or salt, and should, therefore, be used in moderation. They include

- foods that are mostly fats and oils (e.g., butter, margarine, cooking oils, lard)
- foods that are mostly sugar (e.g., jam, honey, syrup, candies)
- high-fat and/or high-salt snack foods (e.g., chips, pretzels)
- beverages (e.g., tea, coffee, soft drinks)
- herbs, spices, and condiments (e.g., mustard, ketchup)

Personal space—the immediate empty space around an individual.

Planes:

- **Frontal plane**—an imaginary division of the body along a vertical axis into front and back.
- **Horizontal plane**—an imaginary division of the body along a horizontal axis into top and bottom, high or low.
- **Sagittal plane**—an imaginary division of the body along a vertical axis into right and left sides; movements are performed parallel to either side of the body.

Plyometrics—comes from the Latin words *ply* (increase) and *metric* (measure). Plyometric exercises are used in aerobic workouts to train the eccentric contraction phase (when muscle lengthens) to develop speed and strength.

Power—“the ability of the body to apply a maximum muscular contraction with the quickest possible speed” (Kirchner and Fishburne 706).

Pulse rate—the measure of the heart’s mechanical work in the circulatory system or the number of times the heart sends blood into the blood vessels, normally expressed as beats per minute.

Qualities of effort in movement:

- **Time**
 - **Fast** (e.g., quick, explosive).
 - **Slow** (e.g., careful, drawn out, sustained).
- **Force**
 - **Strong** (e.g., intense, heavy, forceful, loud).
 - **Light** (e.g., easy, weak, gentle, soft).
- **Flow**
 - **Free**—smooth, large, continuous movement that is flowing and ongoing and cannot be readily stopped.
 - **Bound**—small, controlled, restricted movement that can be readily stopped.

Reaction time—“the ability to react or respond quickly to what you hear, see, or feel” (Rainey and Murray 398).

Recovery heart rate—the heart rate measured at certain intervals after exercise, most often at one, three, and five minutes after completion.

Relationship:

- **Lead**—move in front of a partner or group.
- **Follow**—move behind a partner or group.
- **Chase**—move quickly to reach or overtake a person or object.
- **Flee**—move quickly to avoid a chaser.
- **Dodge**—move quickly to change direction, pathway, and/or speed to evade a player or an object.

Resting heart rate—the number of beats in one minute when you are at complete, uninterrupted rest. It is best taken when first waking up in the morning before lifting the head from the pillow.

Rotation—movement in the horizontal plane of a joint.

Skill-related fitness—the ability to perform successfully during games and sports (also called **performance fitness**).

Skill-related fitness components—include agility, balance, coordination, power, reaction time, and speed.

Slide—a gallop performed in a sideways direction.

“Sometime” foods—foods that are not nutritious and fall into the “other” foods category identified in *Canada’s Food Guide to Healthy Eating* (Health Canada). These foods may be eaten occasionally but not regularly. They may be harmful to your health.

Space awareness—refers to where the body moves with respect to

- **locations** (e.g., personal and general space)
- **directions** (e.g. forwards, backwards, sideways, up, down)

- **levels** (e.g., low, middle, high)
- **pathways** (e.g., curved, straight, zigzag)
- **planes** (e.g., frontal, horizontal, sagittal)

Speed—“the ability to move your body or parts of your body swiftly” (Rainey and Murray 399).

States of motion:

- **Motionless states**—“occur when a body or object is balanced and there is no significant movement” (Coaching Association of Canada 5–5).
- **Linear motion**—“movement in a straight line . . . produced when forces are applied directly through the centre of gravity . . . usually described in terms of how far the body moved and how fast” (Coaching Association of Canada 5–5).
- **Angular motion**—“rotation, or circular motion about an axis . . . produced when forces are not applied directly through the centre of gravity” (Coaching Association of Canada 5–5).

Static balance—controlled body position and posture while at rest.

Symmetrical—having each side the same.

Target heart-rate zones—the heart-rate range within which the heart should beat to achieve the desired physiological benefits.

Tendon—a connective tissue that connects muscle to bone.

Velocity—“a measure of how fast a body is moving . . . usually measured in metres per second (m/s)” (Coaching Association of Canada 5–10).

Vigorous activity—generally requires participation in physical activity so that the heart rate increases to greater than 70% of the individual’s age-related maximum heart rate (e.g., running, supervised weight training, basketball, soccer, cycling in uphill terrain, high-impact aerobic dancing, fast-pace skating) (U.S. Department of Health and Human Services *et al.* 32).

Warm-up—the first phase of a workout, which is used to increase the heart rate and the flow of the blood to the muscles.

**Health
Education**

Aggressive—behaving in a hostile and destructive manner.

Anabolic steroid—a synthetic steroid used to increase muscle size.

Anger-management skills—the ability to solve problems and conflicts in a controlled manner.

Antibiotic—a substance used to inhibit or destroy susceptible micro-organisms.

Anti-inflammatory—a substance used to decrease swelling.

Assertive—standing up for yourself and respecting the rights of others.

Compromise—settling a dispute with each person mutually agreeing on a settlement. Meeting in the middle.

Conflict-resolution skills—the ability to solve a dispute using skills such as listening, paraphrasing, and problem solving.

Diuretic—a drug causing increased output of urine.

Grieving—a period of sadness following a loss.

Guided imagery—the process of following a script that produces images in the mind.

Harassment—continual or repeated bothering or annoying behaviour.

Herbals—herbs used for medicinal purposes.

Hypertension—abnormally high blood pressure.

Marijuana—a hallucinogenic drug taken from part of the hemp plant.

Mediation—using a mediator (neutral person) to intervene to produce an agreement or a reconciliation.

Narcotic—a substance affecting the mind, often causing insensibility or drowsiness.

Negotiation—settling a dispute by talking with others to reach an agreement. A collaborative effort to reach an agreement.

Osteoporosis—a condition of brittle and fragile bones caused by a calcium deficiency.

Passive—refraining from reacting to opposing behaviour.

Primary growth changes—changes related specifically to male or female reproductive systems and development of the genitals.

Progressive relaxation—gradual relaxation of the body.

Relaxation breathing—slow and deep breathing using the diaphragm.

Secondary growth changes—general growth changes that occur in males and females.

Sexually transmitted infections (STIs)—diseases contracted through unprotected sexual contact with body fluids such as blood, semen, and vaginal secretions.

Social-emotional changes—changes related to interpersonal relationships and personal emotions.

Stereotype—a generalization about the way a group of people looks, acts, or behaves.

Stimulant—a drug that arouses the body.

Human Sexuality*

* Terms related to human sexuality are adapted, by permission, from:

- *Choices and Changes* by Health Promotion Unit, Yukon Government.
- *Changing: A Guidebook about Puberty* by Changing Program, Proctor & Gamble Inc. and the Ontario Physical and Health Education Association.

Stress—the body’s response to the demands of life stressors, which can be mental, emotional, social, physical, or environmental (Swaim and Edwards 40).

Violent—involving or using physical force.

Abdominal region—the area of the body where the stomach, intestines, and reproductive organs are located.

Adolescence—the period of physical and psychological development from the beginning of puberty to maturity.

Acne—a severe case of pimples.

Anus—the opening where feces or body waste leaves the body.

Apocrine glands—sweat glands under the arms and in the genital area.

Areola—the ring of skin around the nipple.

Blackhead—a pore clogged with sebum and dark in colour because it is exposed to air.

Bladder—a sac inside the body that holds urine.

Breasts—the milk-producing glands in a woman.

Cervix—the lower part of the uterus.

Circumcision—the operation to remove the foreskin of the penis.

Clitoris—a small sensitive organ above a female’s urinary opening.

Corona—the ring, or ridge, of skin that circles the lower edge of the glans.

Dermis—the layer of skin that makes new skin cells.

Eccrine glands—sweat glands found all over the body.

Egg—the female reproductive cell (also called **ovum**).

Ejaculate—to eject or discharge semen; the act of ejaculation.

Ejaculation—occurs when semen comes out of the penis.

Embryo—a fetus during its first eight weeks of development in the uterus.

Endometrium—spongy, blood-filled tissue that lines the uterus.

Epidermis—the outer layer of skin.

Erection—occurs when the penis fills with blood and becomes hard.

Estrogen—a female sex hormone produced in the ovaries that develops and maintains female characteristics of the body.

Fallopian tubes—narrow tubes between the ovaries and the uterus.

Fertilization—the joining of a female egg and a male sperm to form an embryo.

Fetus—the stage of a baby forming after eight weeks of development in the uterus.

Foreskin—the skin around the head of the penis.

Genitals—the inside and outside sex organs.

Glans—the head of the penis.

Hormones—chemical messengers that tell parts of the body what to do.

Hymen—a ring of skin that may partly cover the vaginal opening.

Labia—the folds of skin around the opening of the vagina.

Menopause—the end of a woman’s menstrual cycles, usually occurring when she is in her late forties or fifties.

Menstrual cramps—physical discomfort experienced during a female’s period.

Menstrual cycle—the process of ovulation and menstruation that occurs approximately once a month beginning at puberty and ending with menopause.

Menstrual fluid—the uterine lining, consisting of spongy tissue and blood, that flows out the body through the vagina during a woman’s period.

Nipple—the small raised part in the centre of the breast.

Nocturnal emission—an ejaculation that occurs involuntarily while asleep (also called a **wet dream**).

Ovaries—the two glands that make the female sex hormones and release egg cells.

Ovulation—the release of a mature egg from the ovary.

Ovum (plural **ova**)—the female reproductive cell (also called **egg**).

Pelvic area—the lower abdominal area between the hips that contains the reproductive organs.

Penis—the sex organ of a male.

Period—the time when a female is menstruating.

Pituitary gland—the gland at the base of the brain that is responsible for producing hormones that regulate the developmental changes that occur during puberty.

Progesterone—a female sex hormone produced in the ovaries that stimulates the preparation of the body for pregnancy.

Prostate gland—a male gland near the bladder that adds fluid to semen.

Puberty—the stage of life during which human males and females become sexually mature.

Pubic area—the area where the legs join the body and pubic hair appears during puberty.

Scrotum—the soft sac in males that holds the testicles or testes.

Sebaceous glands—the oil-making glands of the skin.

Sebum—the oily substance made in the sebaceous glands.

Semen—a white, milky liquid that carries sperm out of the penis during ejaculation (also called **seminal fluid**).

Seminal vesicles—two small pouches that make part of the liquid in semen.

Smegma—a secretion from the sebaceous glands that produces a white, cheesy substance found between the folds of the vulva and under the foreskin of the penis.

Sperm—the male sex cell required to fertilize an egg to make a baby.

Sweat glands—the parts of the body that regulate body temperature by releasing water and salt.

Testes—the testicles.

Testicles—male sex glands that make hormones and sperm.

Testosterone—the male hormone, produced in the testicles, that causes many of the changes of male puberty.

Toxic shock syndrome (TSS)—a rare disease associated with tampon use.

Urethra—the tube through which urine and semen leave the male body.

Uterus—the hollow muscular organ that holds and nourishes the fetus, or unborn baby.

Vagina—the tube that leads from the cervix to the outside of the body.

Vas deferens—the small tubes through which sperm travel from the testicles to the urethra.

Vulva—the outside sex organs of a female.

Wet dream—an ejaculation that occurs involuntarily during sleep (also called **nocturnal emission**).

Notes

