



Indiana Department of Education

Dr. Katie Jenner, Secretary of Education

Glossary

Note: This glossary provides definitions for some of the terms used in the physical education standards and grade-level outcomes. The words included in the glossary can be found throughout the document in bold print. The terms and definitions included here are not meant to be a comprehensive list of essential concepts and ideas in physical education.

Academic Readiness (Cognition): The mental action or process of acquiring knowledge and understanding through thought, experience, and the senses.

Aerobic Activity: Any sustained exercise that stimulates and strengthens the heart and lungs, thereby improving the body's use of oxygen. Examples of aerobic exercise include jogging, rowing, swimming, or cycling.

Aerobic Capacity: The maximum rate at which the body or an individual muscle can take up and use oxygen from the air; also known as maximal oxygen consumption (uptake) or $VO_2\text{max}$.

Agility: The ability to change body position quickly and to control one's physical movements.

Anaerobic Activity: Any short-duration exercise that is powered primarily by metabolic pathways that do not use oxygen. Examples of anaerobic exercise include sprinting and weightlifting.

Ballistic stretching: Uses the momentum of a moving body or a limb in an attempt to force it beyond its normal range of motion.

Body Composition: All of the tissues that together make up the body: bone, muscle, skin, fat, and body organs.

Borg Rating of Perceived Exertion (RPE): This is a measurable way to compare how hard one thinks they are working against how hard they actually are working. One can assess their body's physical signs such as heart rate, breathing rate and perspiration/sweating.

Closed Environment: The surrounding environment doesn't change.

Competency: One's ability, skill, and knowledge to perform a task.

Concentric: A contraction that causes muscles to shorten and generates force.

Dance & Rhythmic Activities: Activities that focus on dance or rhythms and might include, but are not limited to dance forms such as creative movement/dance, ballet, modern, ethnic/folk, hip hop, Latin, line, ballroom, social, square, lummi sticks, tinikling, zumba, and ribbons.

Defense: A means or method of defending or protecting.

Dynamic Stretching: A form of stretching beneficial in sports using momentum from form, and the momentum from static-active stretching strength, in an effort to propel the muscle into an extended range of motion not exceeding one's static-passive stretching ability.

Dynamic Environment: Changing surrounding in which one navigates.

Eccentric: An action that causes a muscle to elongate in response to a greater opposing force.

Emerging: Learners are in the beginning stages of developing competency in motor skills and knowledge. Mastery of the motor skills and knowledge is emerging through deliberate practice tasks.

Etiquette: Conduct expected to be displayed in an activity setting, such as putting away equipment, wishing your opponents good luck before a game, and congratulating them after a game, respecting equipment, cleaning up after yourself.

Field/Striking Games: Games in which one team occupies positions throughout the space (field) and the other team tries to score by batting or striking an object into open space, with enough time for the hitter to run between bases (or wickets).

FITT Principle: Frequency, Intensity, Time, and Type

- Frequency - how often one engages in regular physical activity or exercise
- Intensity - how hard one works
- Time - the length of time one works out (at one session)
- Type - of exercise (cardiovascular training, resistance training, etc.)

Fitness Activities: Activities with a focus on improving or maintaining fitness and might include, but are not limited to yoga, Pilates, resistance training, spinning, running, fitness walking, fitness

swimming, kickboxing, cardio-kick, Zumba and exergaming.

Footpass/Kick Critical Elements (Listed below):

- Arms extend forward in preparation for kicking action
- Contact with ball is made directly below center of ball (travel in the air); contact with ball is made directly behind center of ball (travel on the ground)
- Contact the ball with shoelaces or top of foot for kicking action
- Trunk leans back slightly in preparation for kicking action
- Follow through with kicking leg extending forward and upward toward target

Health Outcomes: Changes in health that are a result of a particular intervention; physical activity for example.

Health-related Fitness Components: Aspects of physical fitness that help one stay healthy. Examples include:

- Body Composition: All of the tissues that together make up the body: bone, muscle, skin, fat, and body organs
- Cardiovascular Fitness: The ability of the heart, lungs, and blood vessels to use and send fuel and oxygen to the body's tissues during long periods of moderate-to-vigorous activity
- Flexibility: The ability to move the joints through a full range of motion
- Muscular Endurance: The ability of the muscles to perform physical tasks over a period of time without becoming fatigued
- Muscular Strength: The amount of force a muscle can exert

Implement: Device used in the performance of a task.

Individual Performance Activities: Activities that do not involve teamwork. Examples include, but are not limited to gymnastics, track and field, multi-sport events, in-line skating, wrestling, self-defense, skateboarding, etc.

Inherent Risk: A possible consequence of participation in physical activity; twisting an ankle playing basketball, for example.

Invasion Games: Games in which teams score by moving an object into another team's territory and either shooting into a fixed target (a goal or basket) or moving the object across an open-ended target (a line).

Isometric: An action in which a muscle generates tension without changing length.

Jumping & Landing Critical Elements (Listed Below):

- Jumping & Landing for Distance (Horizontal Plane)
 - Arms back and knees bend in preparation for jumping action
 - Arms extend forward as body propels forward
 - Body extends and stretches slightly upward while in flight
 - Hips, knees and ankles bend on landing
- Jumping & Landing for Height (Vertical Plane)
 - Hips, knees and ankles bend in preparation for jumping action
 - Arms extend upward as body propels upward
 - Body extends and stretches upward while in flight
 - Hips, knees and ankles bend on landing
 - Shoulders, knees and ankles align for balance after landing

Lead Pass: A throw in which a manipulative is thrown ahead of the intended receiver so that the receiver can catch the manipulative while in motion.

Lifetime Activities: Includes the categories of outdoor pursuits, selected individual performance activities, aquatics, net/wall and target games. Note: Invasion and fielding/striking games have been excluded from the secondary outcomes because these activities require team participation and are less suited to lifelong participation.

Locomotor Skills: Skills that consist of different fundamental motor skills that allows individuals to move through general and personal space from one point to another. Examples are walking, jogging, running, hopping, jumping, galloping, skipping, sliding and leaping.

Manipulative Skills: Skills that require controlling or moving objects to achieve a goal or complete a task. Examples are kicking, striking, throwing, catching, and dribbling.

Mature Form (Pattern): Performance of critical elements of a skill in a smooth and continuous motion.

Modified Games: Small sided games in which the rules of the game have been modified to emphasize the skills being taught.

Movement Concepts: Applying the knowledge and concepts related to movement and fitness activities. Examples are the following: concepts of body awareness, space awareness, effort awareness and relationship awareness.

Moderate to Vigorous Physical Activity (MVPA): The American Heart Association recommends at least 150 minutes of moderate exercise or 75 minutes of vigorous exercise per week. Signs of MVPA include increased heart rate, increased respiration or breathing rate, increased sweating, and muscle fatigue.

Net/Wall Games: Games in which teams or individuals hit a ball (birdie) into an opponent's court generally separated by a net.

Newton's Laws: Three physical laws of motion that, together, laid the foundation for classical mechanics. The laws describe the relationship between a body, the forces acting upon the body, and the body's motion in response to those forces. These laws have been expressed in different ways, and can be summarized as follows:

- *First Law:* When viewed in an inertial reference frame, an object either remains at rest or continues to move at a constant velocity, unless acted upon by an external force.
- *Second Law:* The vector sum of the external forces \mathbf{F} on an object is equal to the mass m of that object multiplied by the acceleration vector \mathbf{a} of the object; $\mathbf{F} = m\mathbf{a}$
- *Third Law:* When one body exerts a force on a second body, the second body simultaneously exerts a force equal in magnitude and opposite in direction on the first body

Non-dynamic environment (closed skills)- Skills or movements performed in a non-dynamic environment that is constant, predictable or stationary. Examples are gymnastics, target games such as archery.

Nonlocomotor or Stability Skills: A movement that a learner performs while maintaining balance or remaining stationary. Examples include rotating upper body from left to right as learner remains in one spot.

Novel: New and different than what is known.

Offense: A means or methods of attacking or attempting to score.

Omni Scale: OMNI is an acronym for the word omnibus, and when defined in the context of a

perceived exertion metric refers to a category scale having broadly generalizable measurement properties. The “exertional meaning” of each pictorial descriptor is consonant with its corresponding verbal descriptor.

Orienteering: A group of activities that requires navigational skills using a map and compass to navigate from point to point in diverse and usually unfamiliar terrain, and normally moving at speed.

Outcomes: Statements that specify what learners will know or be able to complete as a result of learning an activity.

Outdoor pursuits: The outdoor environment is an important factor in student engagement in the activity. Selection of activities depends on the environmental opportunities within the geographical region. Outdoor activities can include recreational boating (kayaking, canoeing, sailing, rowing), hiking, backpacking, fishing, orienteering geocaching, skateboarding, snowshoeing, snow or water skiing, rock climbing, biking, adventure activities and ropes courses.

Overload: The concept that in order to improve physical fitness, one needs to do more physical activity than one normally does.

Performance: Demonstration of a learned skill.

Personal Fitness Plan: A plan for maintenance or improvement that includes an evaluation of current health and fitness levels for cardiorespiratory endurance, muscular strength, muscular endurance, and flexibility and an analysis of individual health behaviors such as diet, sleep, activity, fitness, and hydration.

Physical Activity: Bodily activity that enhances or maintains physical fitness and overall health and wellness. Physical activity may be performed for various reasons, including strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, and merely enjoyment; it is of a well-rounded physical education program, but not a content area in itself.

Proprioceptive neuromuscular facilitation (PNF) Stretching: A set of stretching techniques commonly used in clinical environments to enhance both active and passive range of motion in order to improve motor performance and aid rehabilitation.

Recovery: The rest periods between physical training when muscle damage is repaired and waste is metabolized. The optimum recovery time is between 24 and 48 hours after exercise. Recovery also can be achieved by alternating more difficult training days with easier training days, or alternating muscle groups so you're not working the same muscles continually. Improper recovery can lead to muscle fatigue, increasing the potential for subsequent injuries.

Recovery Heart Rate: The heart's ability to return to normal levels after physical activity. Fitness level and proper function of your heart are measured by the recovery phase. A heart that is healthy will recover at a quicker rate than one that is not healthy or is not accustomed to regular exercise.

Self-Selected: Student choice related to activities or exercises in class.

Skill-Related Fitness: Agility, balance, coordination, power, reaction time, and speed.

Small-Sided Game: An organized game in which the number of players is reduced from the conventional competitive version of the sport. Examples include 2v2 basketball, 3v3 volleyball, and 6v6 lacrosse.

Small-Sided Practice Task: Teacher designed tasks to practice particular skills being taught.

Social Outcomes: Changes in personal functioning in a social structure as a result of a particular intervention; physical activity for example.

Specificity: The principle of specificity implies that to become better at a particular exercise or skill, you must perform that exercise or skill. It also implies that specific types of exercise improve specific muscles or specific types of fitness.

Static Stretching: Muscle stretching that occurs while the body is at rest.

Strike with Implement Critical Elements (Listed Below):

- Striking with Short Implement
 - Racket back in preparation for striking
 - Step on opposite foot as contact is made
 - Swing racket or paddle low to high
 - Coil and uncoil the trunk for preparation and execution of the striking action
 - Follow through for completion of the striking action

- Striking with Long Implement (Side-Arm Pattern)
 - Bat up and back in preparation for the striking action
 - Step forward on opposite foot as contact is made
 - Coil and uncoil the trunk for preparation and execution of the striking action
 - Swing the bat on a horizontal plane
 - Wrist uncocks on follow-through for completion of the striking action

Tactics: The art or skill of employing available means to accomplish an end. (w)

Target Games: Games in which players score by throwing or striking an object to a target. (w)

Target Heart Zone - The recommended intensity for aerobic conditioning; estimated to be between 50% and 85% of ones predicted maximum heart rate (MRH - the maximum number of times your heart can beat in one minute).

Trajectory: The path followed by an object moving through space. (w)

Unsafe Practice: Any avoidable and foreseeable action that threatens the health of students.

Volley: A shot or kick made by hitting an object before it touches the ground.