

The **OPEN** Academic Language Project

Based on the Virginia Physical Education Standards of Learning

Essential Strand Glossary

GRADE EIGHT

THIS PROJECT IS MADE POSSIBLE THROUGH A PARTNERSHIP BETWEEN

The Virginia Department of Education

SUNY Cortland

The SUNY Cortland Activity and Movement Pedagogy Lab (AMP Lab)

& OPEN (The Online Physical Education Network)

Please share. This is an open-source project.

Kindly reference OPENPhysEd.org, The SUNY Cortland AMP Lab, and the VA DOE.



More Physical Education Curriculum Tools at www.OPENPhysEd.org

OPEN is a Public Service of US Games

The OPEN Academic Language Project

Virginia Physical Education Standards of Learning Essential Strand Glossary

MOTOR SKILL DEVELOPMENT

AGILITY

(Noun)

A skill-related fitness component that is the ability to quickly change body position.

Robert could quickly move across the court to return Annalise's serve because of his agility.

(VA SOL 8.1)

ANALYZE

(Verb)

To observe something to get important information about it.

Liam analyzed Finn's movements, which helped him anticipate exactly where the spike was going.

(VA SOL 8.1)

BALANCE

(Noun)

A skill-related fitness component that is the ability to control body position in space.

Center of gravity and center of support both affect balance.

Elizabeth used balance as she walked on the curb.

(VA SOL 8.1)

COOL-DOWN

(Noun)

A brief 5 to 15-minute period of low intensity exercise that immediately follows a primary conditioning period.

Erik wanted to let his heart rate and muscles recover from the 5K race, so he took a 5-minute walk as a cool-down.

(VA SOL 8.1)

BIOMECHANICAL PRINCIPLES

(Noun)

Fundamentals of the study of movement within the human body.

Trey focused on the biomechanical principle of base of support when he was trying a headstand.

(VA SOL 8.1)

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CENTER OF GRAVITY

(Noun)

A single point from which the body's weight is evenly distributed, creating perfect balance.

Jen's center of gravity changed when she bent forward and extended both arms to the side.

(VA SOL 8.1)

COMMUNICATION SKILLS

(Noun)

The ability to exchange information with another person effectively and efficiently.

Jim showed good communication skills by clearly discussing a play with his teammate.

(VA SOL 8.1)

COOPERATION

(Noun)

The process of working together for a common goal.

Keeping our PE equipment in good condition takes cooperation. We all must work together to use things the way the right way and to put them back when class is over.

(VA SOL 8.1)

COORDINATION

(Noun)

A skill-related fitness component that is the ability to combine movements of several parts of the body.

Jumping rope requires a lot of coordination because it involves turning the rope and jumping at the same time.

(VA SOL 8.1)

DEFENSE

(Noun)

The team or players in a game or sport who are trying to steal away possession of the ball/object and stop the opponent from scoring a goal or point.

Ali's team was good at playing defense because they kept the other team from scoring.

(VA SOL 8.1)

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DYNAMIC

(Adjective)

Something that is constantly changing or moving.

Kendra knew that dribbling was a dynamic skill because while someone dribbles, the ball continuously moves.

(VA SOL 8.1)

ENERGY

(Noun)

The biomechanical principle of energy in motion or force that maximizes the efficiency of movement.

During the approach in a volleyball spike, the momentum of the body builds up energy.

(VA SOL 8.1)

FEEDBACK

(Noun)

Information provided in reaction to a performance or action.

Anthony gave corrective feedback to his partner by telling him how he could improve his serve.

(VA SOL 8.1)

FORCE

(Noun)

Strength or power.

Isaac couldn't catch the ball because William used too much force when he threw it.

(VA SOL 8.1)

MOVEMENT CONCEPTS

(Noun)

The elements important in the study of human movement: body awareness, space, and qualities of movement (force, balance, time, and flow).

At the end of the school year, Lucas was able to recall a number of movement concepts he learned in physical education.

(VA SOL 8.1)

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MOVEMENT SKILLS

(Noun)

Foundational movement patterns that serve as the basis of physical literacy.

In kindergarten, Lauren worked hard on her basic movement skills. When she got older, she became skilled at soccer because of her movement foundation.

(VA SOL 8.1)

NEWTON'S LAWS OF MOTION

(Noun)

A set of 3 physical laws that lay the foundation for scientific mechanics. 1) The Law of Inertia; 2) The Law of Acceleration; 3) The Law of Action and Re-action.

Daniel connected his circus arts skills to science class by reading about Newton's Laws of Motion.

(VA SOL 8.1)

OFFENSE

(Noun)

The team or players in a game or sport who are attempting to score or move the ball forward.

The offense was able to pass the ball and score against the other team's defense.

(VA SOL 8.1)

OVERLOAD

(Verb)

A training principle that refers to a load or amount that provides greater stress on the body than it is used to for fitness improvement.

Tyler decided to use the overload principle, so he increased the weight for his bench press lifts.

(VA SOL 8.1)

PHYSIOLOGY

(Noun)

The branch of biology that deals with the functions and activities of living organisms and their parts.

Clark used his knowledge of physiology to analyze his movements and improve his long jump.

(VA SOL 8.1)

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PLANES OF MOVEMENT

(Noun)

A sectioned view of the body that includes the frontal plane, the sagittal plane, and the transverse plane.

Kate knew that flexion of the knee occurs in the sagittal plane of movement.

(VA SOL 8.1)

POWER

(Noun)

A skill-related fitness component that is a combination of strength and speed.

Michaela knew that she must have power in her legs to do a long jump.

(VA SOL 8.1)

REACTION TIME

(Noun)

A skill-related fitness component that is the time it takes a person to respond to what they can hear, see, or feel.

Hitting a fast pitch requires good reaction time to swing the bat quickly.

(VA SOL 8.1)

RHYTHM

(Noun)

A uniform pattern of sound or movement.

Chris was dribbling the basketball to the rhythm of the music.

(VA SOL 8.1)

ROTATION

(Noun)

The action of turning around an axis or center.

Erika, a dominant softball pitcher, used her arm's full rotation to perform a windmill pitch.

(VA SOL 8.1)

SKILL-RELATED FITNESS

(Noun)

A group of six physical characteristics that contribute to a person's ability to successfully complete a physical performance. The six components include agility, balance, coordination, power, reaction time, and speed.

Sage knew that improving his skill-related fitness was essential to becoming a better athlete.

(VA SOL 8.1)

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SPECIFICITY

(Noun)

The training principle stating that to become better at an exercise or skill, that exercise or skill must be practiced.

A runner should train by running and a swimmer should train by swimming are examples of specificity.

(VA SOL 8.1)

SPEED

(Noun)

A skill-related fitness component that is the ability to move the body rapidly from one point to another.

Ralph's speed was incredible. Sara was the only student in the entire school that could keep up with him.

(VA SOL 8.1)

TACTIC

(Noun)

An action or strategy that helps in achieving a specific goal.

You need both offensive and defensive tactics to win a game.

(VA SOL 8.1)

WARM-UP

(Noun)

A brief 5 to 15-minute period of exercise that precedes the workout. The purpose of the warm-up is to elevate muscle temperature and increase blood flow to the muscles that will be engaged in the workout, exercise, or competition.

Christa always performed a warm-up before dance practices and performances in order to prevent muscle injury.

(VA SOL 8.1)

ANATOMICAL BASIS OF MOVEMENT

AGILITY

(Noun)

A skill-related fitness component that is the ability to quickly change body position.

Robert could quickly move across the court to return Annalise's serve because of his agility.

(VA SOL 8.2)

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BALL AND SOCKET JOINT

(Noun)

A joint with a ball-shaped end fits into a cup-shaped end of another bone.

A ball and socket joint, like the hip or shoulder, allows for a wide range of movement.

(VA SOL 8.2)

BIOMECHANICAL PRINCIPLES

(Noun)

Fundamentals of the study of movement within the human body.

Trey focused on the biomechanical principle of base of support when he was trying a headstand.

(VA SOL 8.2)

BODY SYSTEMS

(Noun)

A group of body organs that together perform vital functions. Examples are cardiorespiratory, vascular, muscular, and skeletal.

Zack was learning about major body systems and became particularly fascinated by the muscular system.

(VA SOL 8.2)

COORDINATION

(Noun)

A skill-related fitness component that is the ability to combine movements of several parts of the body.

Jumping rope requires a lot of coordination because it involves turning the rope and jumping at the same time.

(VA SOL 8.2)

DEFENSE

(Noun)

The team or players in a game or sport who are trying to steal away possession of the ball/object and stop the opponent from scoring a goal or point.

Ali's team was good at playing defense because they kept the other team from scoring.

(VA SOL 8.2)

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ENERGY

(Noun)

The biomechanical principle of energy in motion or force that maximizes the efficiency of movement.

During the approach in a volleyball spike, the momentum of the body builds up energy.
(VA SOL 8.2)

EXTENSION

(Noun)

The action of moving a limb from a bent to a straight position.

Rhianna performed a leg extension during her balance beam routine.
(VA SOL 8.2)

FEEDBACK

(Noun)

Information provided in reaction to a performance or action.

Anthony gave corrective feedback to his partner by telling him how he could improve his serve.
(VA SOL 8.2)

FLEXION

(Noun)

The action of moving a limb from a straight to a bent position.

As Colin was doing a squat, he experienced flexion of his knees.
(VA SOL 8.2)

FORCE

(Noun)

Strength or power.

Isaac couldn't catch the ball because William used too much force when he threw it.
(VA SOL 8.2)

HINGE JOINT

(Noun)

A joint between bones that allows movement in only one plane.

Because the elbow can only move along one straight line when it bends and straightens, it is a hinge joint.
(VA SOL 8.2)

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JOINT

(Noun)

A structure in the body where two parts of the skeleton fit together.

The arm and the hand are connected by the wrist joint.

(VA SOL 8.2)

MOVEMENT CONCEPTS

(Noun)

The elements important in the study of human movement: body awareness, space, and qualities of movement (force, balance, time, and flow).

At the end of the school year, Lucas was able to recall a number of movement concepts he learned in physical education.

(VA SOL 8.2)

MUSCLE

(Noun)

Body tissue that can change its size to move body parts.

Building muscle in our bodies helps us to do everyday things like lifting heavy objects.

(VA SOL 8.2)

MUSCLE CONTRACTION

(Noun)

The tensing of muscle fibers in response to load or force.

Muscle contraction is what allowed Cassidy to lift the weights.

(VA SOL 8.2)

NEWTON'S LAWS OF MOTION

(Noun)

A set of 3 physical laws that lay the foundation for scientific mechanics. 1) The Law of Inertia; 2) The Law of Acceleration; 3) The Law of Action and Re-action.

Daniel connected his circus arts skills to science class by reading about Newton's Laws of Motion.

(VA SOL 8.2)

OFFENSE

Noun)

The team or players in a game or sport who are attempting to score or move the ball forward.

The offense was able to pass the ball and score against the other team's defense.

(VA SOL 8.2)

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PEER ASSESSMENT

(Noun)

An evaluation of a student's performance or skill in relation to that is completed by a peer.

Mrs. Tully asked her students to find a partner and do a peer assessment of the basketball dribble.

(VA SOL 8.2)

PIVOT JOINT

(Noun)

A joint in which movement is restricted to rotation.

Judy identified inward rotation of the forearm as a pivot joint.

(VA SOL 8.2)

POWER

(Noun)

A skill-related fitness component that is a combination of strength and speed.

Michaela knew that she must have power in her legs to do a long jump.

(VA SOL 8.2)

REACTION TIME

(Noun)

A skill-related fitness component that is the time it takes a person to respond to what they can hear, see, or feel.

Hitting a fast pitch requires good reaction time to swing the bat quickly.

(VA SOL 8.2)

ROTATION

(Noun)

The action of turning around an axis or center.

Erika, a dominant softball pitcher, used her arm's full rotation to perform a windmill pitch.

(VA SOL 8.2)

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SPEED

(Noun)

A skill-related fitness component that is the ability to move the body rapidly from one point to another.

Ralph's speed was incredible. Sara was the only student in the entire school that could keep up with him.

(VA SOL 8.2)

STRATEGY

(Noun)

A plan of action for achieving a goal.

The team scored many points because their offensive strategy was working well.

(VA SOL 8.2)

TACTIC

(Noun)

An action or strategy that helps in achieving a specific goal.

You need both offensive and defensive tactics to win a game.

(VA SOL 8.2)

FITNESS PLANNING

ASSESS

(Verb)

To evaluate or judge the quality of a performance.

Enrique will assess his partner's shooting form to help him better understand his current skill level and how to improve.

(VA SOL 8.3)

BODY COMPOSITION

(Noun)

The ratio of lean tissue to fat tissue in the body.

Max planned to improve his body composition by exercising regularly and eating nutritious foods.

(VA SOL 8.3)

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COOL-DOWN

(Noun)

A brief 5 to 15-minute period of low intensity exercise that immediately follows a primary conditioning period.

Erik wanted to let his heart rate and muscles recover from the 5K race, so he took a 5-minute walk as a cool-down.

(VA SOL 8.3)

HEALTH-RELATED FITNESS

(Noun)

A group of five physical characteristics that contribute to a person's overall well-being. The five components of Health-Related Fitness include Cardiovascular Endurance, Muscular Strength, Muscular Endurance, Flexibility, and Body Composition.

Katie understood the importance of each component of health-related fitness and made every effort to be active for 60 minutes a day.

(VA SOL 8.3)

HEART RATE

(Noun)

The speed at which the heart is beating, measured in beats per minute.

Nancy checks her heart rate before and after exercise and knows that when she is moving faster, her heart rate is going to increase.

(VA SOL 8.3)

MODERATE

(Adjective)

Average in amount or intensity.

Mr. Renta had his students choose a moderate physical activity.

(VA SOL 8.3)

OVERLOAD

(Verb)

A training principle that refers to a load or amount that provides greater stress on the body than it is used to for fitness improvement.

Tyler decided to use the overload principle, so he increased the weight for his bench press lifts.

(VA SOL 8.3)

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PROGRESSION

(Noun)

A training principle that refers to increasing the demands on the body to improve fitness.

Steve increased the number of repetitions each week to improve his strength.

(VA SOL 8.3)

SELF-ASSESSMENT

(Noun)

The evaluation of one's own performance.

Mrs. Gerdes filmed her students throwing so that they could perform a self-assessment.

(VA SOL 8.3)

SMART GOALS

(Noun)

SMART goals are specific, measurable, attainable, realistic and timely.

When coming up with our SMART goals, we use the FITT principle so that we can be the most successful in our planning.

(VA SOL 8.3)

SPECIFICITY

(Noun)

The training principle stating that to become better at an exercise or skill, that exercise or skill must be practiced.

A runner should train by running and a swimmer should train by swimming are examples of specificity.

(VA SOL 8.3)

STRATEGY

(Noun)

A plan of action for achieving a goal.

The team scored many points because their offensive strategy was working well.

(VA SOL 8.3)

VIGOROUS

(Adjective)

Done with great force and energy.

Vera exercised vigorously to condition her cardiovascular system.

(VA SOL 8.3)

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WARM-UP

(Noun)

A brief 5 to 15-minute period of exercise that precedes the workout. The purpose of the warm-up is to elevate muscle temperature and increase blood flow to the muscles that will be engaged in the workout, exercise, or competition.

Christa always performed a warm-up before dance practices and performances in order to prevent muscle injury.

(VA SOL 8.3)

SOCIAL DEVELOPMENT

BENEFIT

(Noun)

An advantage gained from something.

Having fun with your friends is one benefit of being physically active with a group.

(VA SOL 8.4)

COMMUNICATION SKILLS

(Noun)

The ability to exchange information with another person effectively and efficiently.

Jim showed good communication skills by clearly discussing a play with his teammate.

(VA SOL 8.4)

CONFLICT RESOLUTION

(Noun)

A way to find a positive solution to a disagreement.

Before we started our tournament games, we came up with a list of strategies for conflict resolution.

(VA SOL 8.4)

COOPERATION

(Noun)

The process of working together for a common goal.

Keeping our PE equipment in good condition takes cooperation. We all must work together to use things the way the right way and to put them back when class is over.

(VA SOL 8.4)

The OPEN Academic Language Project

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DANCE

(Verb)

To perform a series of movements that match the tempo and rhythm of a piece of music.

Deedi loved dance and put movements together to go with her favorite songs.

(VA SOL 8.4)

DYNAMIC

(Adjective)

Something that is constantly changing or moving.

Kendra knew that dribbling was a dynamic skill because while someone dribbles, the ball continuously moves.

(VA SOL 8.4)

ENCOURAGEMENT

(Noun)

Support, confidence, or hope offered by someone.

Paul offered his friends encouragement by telling them how much their skills had improved during their practice.

(VA SOL 8.4)

ETIQUETTE

(Noun)

Rules for good behavior and manners.

Justine did a good job of showing proper etiquette for the sport by staying quiet during the serve.

(VA SOL 8.4)

FEEDBACK

(Noun)

Information provided in reaction to a performance or action.

Anthony gave corrective feedback to his partner by telling him how he could improve his serve.

(VA SOL 8.4)

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INTEGRITY

(Noun)

The quality of being honest and having strong moral character.

Mrs. Crandall taught integrity as a one of the most important characteristics in sports as well as in daily life.

(VA SOL 8.4)

PHYSICAL ACTIVITY

(Noun)

Any physical movement that uses the body's energy.

Taking a walk with my family is a great physical activity and helps us stay healthy.

(VA SOL 8.4)

PILATES

(Noun)

A system of exercises using special apparatus, designed to improve physical strength, flexibility, and posture and to enhance mental awareness.

Rosemarie worked out at home using a Pilates DVD to increase her core strength and flexibility.

(VA SOL 8.4)

PROBLEM SOLVING

(Noun)

The process of finding solutions to difficult issues.

Jess used his problem-solving skills to help his team accomplish their goal.

(VA SOL 8.4)

RESPECTFUL

(Adjective)

To be polite and thoughtful.

I show respectful behavior to my teacher by listening and following directions.

(VA SOL 8.4)

TAI CHI

(Verb)

An ancient Chinese martial art that involves a series of movements performed in a slow, focused manner and accompanied by deep breathing.

Nicole started practicing tai chi to work on her relaxation and fitness.

(VA SOL 8.4)

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TEAMWORK

(Noun)

The combined action and effort of a group of people working toward a goal.

Destiny and Jayden knew that reaching their goal would take teamwork, so they planned to communicate and cooperate during all practices and games.

(VA SOL 8.4)

YOGA

(Noun)

A group of physical, mental, and spiritual practices that is done for health and relaxation.

Julie preferred to do yoga because she got a great workout while meditating.

(VA SOL 8.4)

ENERGY BALANCE

AEROBIC ENERGY SYSTEM

(Noun)

The body produces the most energy with this system, but at a low intensity. Aerobic exercise (noun) works the heart and lungs to help the body use oxygen better.

Running, swimming, and biking are forms of aerobic exercise.

(VA SOL 8.5)

ANAEROBIC ENERGY SYSTEM

(Noun)

The energy system used when the body produces energy without oxygen. Anaerobic exercise (noun) is short duration (less than two minutes), high intensity exercise that does not use oxygen for energy.

Strength-based exercises such as sprinting are anaerobic activities.

(VA SOL 8.5)

BODY COMPOSITION

(Noun)

The ratio of lean tissue to fat tissue in the body.

Max planned to improve his body composition by exercising regularly and eating nutritious foods.

(VA SOL 8.5)

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CALORIC INTAKE

(Noun)

The number of calories that a person consumes daily.

Aisha wanted to gain weight, so she made sure her caloric intake was more than her caloric expenditure.

(VA SOL 8.5)

ENERGY BALANCE

(Noun)

The balance between calories taken in from food compared to calories burned through physical activity. The balance is positive (weight gain) when the body stores extra food as fats and negative (weight loss) when the body uses stored fat to provide energy for movement.

Mandy wanted to assess her energy balance, so she started measuring her caloric intake and expenditure.

(VA SOL 8.5)

ENERGY EXPENDITURE

(Noun)

The number of calories a person needs to be physically active.

Sandy wanted to calculate her energy expenditure so she bought a device she could wear to calculate calories burned.

(VA SOL 8.5)

HYDRATION

(Noun)

A supply of water to the body to restore or maintain a balance of fluids.

Bruce drinks water before, during, and after events in order to maintain his hydration. By staying hydrated, he is able to perform his best.

(VA SOL 8.5)

MACRONUTRIENTS

(Noun)

Nutrients required in large amounts for proper body functioning, including protein, fat, and carbohydrates.

Lucas identified fats, proteins, and carbohydrates as the macronutrients used in the human body.

(VA SOL 8.5)

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MINERALS

(Noun)

Substances in food, like iron, calcium, and potassium, that help the body grow and stay healthy.

Mr. Rossi taught his class the importance of getting an appropriate amount of minerals such as salt in your diet.

(VA SOL 8.5)

NUTRIENTS

(Noun)

Substances in food that provide nourishment essential for growth and development.

Blair consumes a variety of nutrients in order to stay healthy.

(VA SOL 8.5)

PHYSICAL ACTIVITY

(Noun)

Any physical movement that uses the body's energy.

Taking a walk with my family is a great physical activity and helps us stay healthy.

(VA SOL 8.5)

PORTION SIZE

(Noun)

The amount of food a person decides to eat at one time.

Kevin wanted to gain weight, so he ate larger portion sizes of healthy foods.

(VA SOL 8.5)

RATE OF PERCEIVED EXERTION (RPE)

(Noun)

A way of measuring physical activity intensity level by how hard you feel your body is working.

Nathan used the RPE scale to identify how hard he was working during the basketball activity.

(VA SOL 8.5)

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SALT

(Noun)

A mineral that helps maintain blood pressure, manages the amount of water in the cells, and keep nerves operating.

The teacher said we should avoid foods that are too high in salt because it can increase our blood pressure.

(VA SOL 8.5)

SUGAR

(Noun)

A carbohydrate that is found naturally in fruits, vegetables, and milk products. It is also added to many foods during processing.

The students were asked to create a daily meal plan that was low in sugar.

(VA SOL 8.5)

VITAMINS

(Noun)

Substances that are essential for normal growth and nutrition.

Orange juice contains Vitamin C.

(VA SOL 8.5)

WARM-UP

(Noun)

A brief 5 to 15-minute period of exercise that precedes the workout. The purpose of the warm-up is to elevate muscle temperature and increase blood flow to the muscles that will be engaged in the workout, exercise, or competition.

Christa always performed a warm-up before dance practices and performances in order to prevent muscle injury.

(VA SOL 8.5)