# **GRADE SIX**

Students in grade six apply fundamental skills and knowledge of anatomical structures and movement principles to build movement competence and confidence through acquisition, performance, and refinement of skills. Cooperative and competitive small-group games are appropriate as well as outdoor pursuits, fitness activities, dance and rhythmic activities, aquatics, individual performance activities, and sports (net/wall, striking/fielding, and goal/target), with an emphasis on developing skills and tactical understanding. Students use feedback to initiate and maintain practice to improve skill performance. Students assess their health-related fitness status and set reasonable and appropriate goals for development, maintenance, and improvement. Students in grade six will explain the connection between energy balance and nutrition guidelines, meal planning, and heart rate. Social interaction becomes more complex as peer pressure becomes increasingly pronounced, affecting individual performance. Students solve problems and make responsible decisions as they work together. They identify and seek opportunities to participate in regular physical activity at school and outside the school environment.

#### Motor Skill Development

- 6.1 The student will demonstrate all critical elements in movement forms in various activities and demonstrate the six components of skill-related fitness.
  - a) Combine and apply manipulative skills into small-sided games for overhand and underhand throwing and catching, throwing and catching to a target with accuracy and control, and hand and/or foot dribbling with accuracy at varying speeds while applying spatial awareness within partner and small-group modified game-play.
  - b) Combine and apply the manipulative skills of volleying with a partner over a net or against a wall with changes in force, accuracy, and direction into small-sided games.
  - c) Combine and apply the manipulative skills of striking/batting an object with a short and long implement with changes in force, accuracy, direction in small-sided games.
  - d) Combine and apply manipulative skills in small-sided games, dribbling/passing a soccer ball with accuracy at varying speeds while applying spatial awareness to a partner or within a small group.
  - e) Create and perform a movement sequence in a jump rope or dance activity.
  - f) Demonstrate and apply the six components of skill-related fitness (i.e., agility, balance, coordination, power, reaction time, and speed).

g) Demonstrate basic offensive and defensive strategies in noncomplex, modified, and small-sided activities.

## **Essential Understandings**

Motor skill development includes combining locomotor and manipulative skills and applying the skills to ever-changing physical activity/game situations.

• Combine overhand and underhand throwing and catching, execution to a target, hand and/or foot dribbling, volleying/striking and/or batting ball skills with changes in direction, speed, patterns, pathways, and spatial relationships and apply to partner and small-group modified game-play that includes dynamic and unpredictable situations. (6.1.a, 6.1.b, 6.1.c, 6.1.d)

Movement competency involves patterns.

• Student-created individual or group rhythm/jump rope/dance sequences that include a beginning and ending counts for 4/8, variety of skills/movements, and changes in directions or pathways. (6.1.e)

Skill-related fitness components increase one's ability to perform in various activities and leads to good overall health. (6.1.f)

- Agility: the ability to move quickly and easily; quick change of direction.
- Balance: stability produced by even distribution of weight; muscles tense to keep the body in a balanced position.
- Coordination: the harmonious functioning of parts for effective results;
   it takes eye-hand coordination to strike an object.
- Power: physical might; the ability to act or produce an effect; kicking a ball for distance.
- Reaction time: the time required for a subject to initiate a prearranged response to a defined stimulus; the time between hearing a whistle and

# **Essential Knowledge and Skills**

In order to meet these standards, it is expected that students will

- demonstrate manipulative skills and movement sequences in partner and small-group modified game-play (6.1.a);
- analyze movement situations for changes in force, direction, speed, accuracy, and pathways to improve performance (6.1.b, 6.1.c);
- demonstrate spatial awareness in partner and small-group modified game play (6.1.d);
- student-created and performance of movement sequences in a jump rope, rhythmic, or dance activity (6.1.e);
- identify the six components (i.e., agility, balance, coordination, power, reaction time, and speed) of skill-related fitness (6.1.f);
- describe basic offensive and defensive strategies (6.1.g);
- demonstrate offensive strategies without defensive pressure (6.1.g);
- demonstrate defensive strategies during small-group/modified game play (6.1.g).

starting to run or the time between seeing a ball being thrown to a place out of reach and moving to catch it.

• Speed: the rate of motion; the ability to move swiftly.

Movement situations can be evaluated for direction, speed, accuracy, and pathways to improve performance. (6.1.d)

• Example: Intercepting a pass (thrown, kicked, or bounced) between players requires knowledge of the direction of the pass, how fast to move to intercept before it gets to the teammate, where to be to intercept it, and the pathway to intercept (forward, sideways, diagonal.)

Spatial awareness allows people and objects to move safely through the environment. (6.1.d)

Basic offensive and defensive skills will increase success during non-complex, modified, and small-sided game play activities. (6.1.g)

- Offensive skills include moving to open spaces, give and go, fakes, pivots, changing speed/direction, positioning in front of defender closer to a teammate, communicating with teammates, and continually moving/not standing still.
- Defensive skills include ready position (knees slightly bent, hinge at the hip), reducing space, positioning between the person with the ball and another player on offense, positioning between offense and goal, positioning to defend a particular player on offense or to defend and area of the field of play, player-to-player defense, and transitioning from offense to defense quickly.
- Non-complex, modified games break games into their simplest format and then build on the basics, increasing in complexity as students' skill levels advance.

Additional resources:

SHAPE America National Standards and Grade-

Level Outcomes

**OPEN Online Physical Education Network** 

Health Smart Virginia

PE Central

Dynamic PE ASAP

•	Small-sided game play activities are games that use a smaller number of
	players per team (3 v 3 or 5 v 5), which allows each player more time
	with direct participation to advance their skills.

#### Anatomical Basis of Movement

- 6.2 The student will apply both movement principles and concepts including the knowledge of anatomical structures to movement-skill performance.
  - a) Refine and adapt individual and group activity skills by applying concepts of relationships, effort, spatial awareness, direction, speed, accuracy, and pathways to improve performance.
  - b) Apply knowledge of the skeletal system by identifying major joints, associated bones, and types of joints, including ball-and-socket, and hinge joint.

#### **Essential Understandings**

Relationships, effort, spatial awareness, direction, speed, accuracy, and pathways affect performance. (6.2.a)

- Relationships: connections and effects of movements (throwing a ball with accuracy, leading a running teammate, and enough force to ensure teammate can catch the ball).
- Effort: the work done to achieve a particular end/result, genuine attempt/try.
- Spatial awareness: knowing where the body is in space in relation to objects and other people; ability to move with and around others and objects.
- Direction: the path along which something travels.
- Speed: the rate of motion; the ability to move swiftly.
- Accuracy: the quality of being precise; the ability to get an object where it is intended to go.
- Pathways: straight, curved, zigzag, diagonal.

Muscles contract to produce movement at joints. Joints are the connections between two bones. (6.2.b)

• Ball-and-socket joint: rounded surface of one bone moves within a depression on another bone; hip (head of femur and depression of pelvis);

# Essential Knowledge and Skills

In order to meet these standards, it is expected that students will

- refine and adapt individual and group activity skills by applying concepts of relationships, effort, spatial awareness, direction, speed, accuracy, and pathways to improve performance (6.2.a);
- apply knowledge of the skeletal system by identifying major joints, associated bones, and types of joints, including ball-and-socket, and hinge joint. (6.2.b)

Additional resources:

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Level Outcomes

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Dynamic PE ASAP

Essential Understandings	Essential Knowledge and Skills
shoulder (humerus, scapula, clavicle).	KidsHealth.org
<ul> <li>Hinge joint: backward and forward swing motion; joints between bones</li> </ul>	
of the fingers (phalanges); ankle (fibula, tibia, and talus of the foot);	
elbow (ulna and humerus); knee (femur, tibia, and patella).	

### Fitness Planning

- 6.3 The student will apply skills of measurement, analysis, goal setting, problem solving, and decision making to improve or maintain physical fitness.
  - a) Create a basic personal fitness plan for at least one health-related component of fitness, including baseline fitness data, a SMART goal, activities that will address the goal, a log of activities inside and outside school, reassessment data (post-data) and reflection of goal progress/attainment.
  - b) Identify resources, including available technology, to evaluate, monitor, and record activities for fitness improvement.
  - c) Calculate resting, active, and recovery heart rate during a variety of physical activities, and identify the relationship between heart rate and rate of perceived exertion (RPE) levels.
  - d) Describe how being physically active improves physical and mental health.
  - e) Interpret fitness data, comparing individual scores to health-related criterion-referenced standards (Virginia wellness-related fitness standards, FitnessGram, Centers for Disease Control and Prevention guidelines).
  - f) Create and implement an activity plan to meet the Centers for Disease Control and Prevention's Physical Activity Guidelines for Americans and identify the necessary safety precautions for participation.
  - g) Describe a rate of perceived exertion scale.

Essential Understandings	Essential Knowledge and Skills
Self-assessments allow you to determine the factors that you can alter when	In order to meet these standards, it is expected that
creating a personal fitness plan to make changes toward a healthy lifestyle and	students will
fitness goals. (6.3.a)	<ul> <li>create a basic personal fitness plan for at</li> </ul>
	least one health-related component of
SMART goals clarify exactly what to do and the measures needed to improve	fitness, including baseline fitness data, a
and maintain your fitness level and plans. (6.3.a)	SMART goal, activities that will address
• Specific: Goals are straightforward and detail what is to be accomplished.	the goal, a log of activities inside and
• Measurable: Goals must be able to be measured for improvement (how	outside school, reassessment data (post-
much, how many, how will you know the goal is accomplished?).	data) and reflection of goal
Attainable: Goals require effort beyond what already has been achieved.	progress/attainment (6.3.a);
	<ul> <li>identify resources, including available</li> </ul>

## **Essential Understandings**

- Realistic: Goals need to be achievable and reachable.
- Timely: Goals should have a time element attached to keep you on track to accomplish in a given time period.

Physical fitness can be evaluated through a variety of methods including measurements and assessment tools, criterion-referenced health-related fitness standards, and available technology to evaluate, monitor, and record activities for fitness improvement. (6.3.b)

Heart rate can be used to help determine personal fitness levels. The more fit a person is, the more quickly the heart will recover after strenuous physical activity. (6.3.c)

- Resting heart rate (RHR) is best taken after 10 minutes of rest.
- Active heart rate can be taken at multiple points during the activity and include being taken immediately after stopping the activity.
- Recovery heart rate is the decrease in heart rate that occurs one minute after maximal exercise. A faster decrease in heart rate is associated with individuals with higher levels of fitness.

Regular participation in physical activity in childhood is associated with a decreased cardiovascular risk in youth and adulthood. (6.3.d)

Physical activity helps to maintain weight; reduce high blood pressure; reduce the risk for type 2 diabetes, heart attack, stroke, and several forms of cancer; reduce arthritis pain and associated disability; reduce the risk for osteoporosis and falls; and reduce symptoms of depression and anxiety. (6.3.d)

### **Essential Knowledge and Skills**

- technology (e.g., heart rate monitors, pedometers) to evaluate, monitor, and record activities for fitness improvement (6.3.b);
- calculate resting, active, and recovery heart rate during a variety of physical activities and identify the relationship between heart rate and rate of perceived exertion (RPE) levels (6.3.c);
- describe how being physically active leads to a healthy body (6.3.d);
- interpret fitness data, comparing individual scores to health-related criterion-referenced standards (Virginia wellness-related fitness standards, FitnessGram, CDC guidelines) (6.3.e);
- Create and implement an activity plan to meet the Centers for Disease Control and Prevention's Physical Activity Guidelines for Americans and identify the necessary safety precautions for participation (6.3.f);
- describe a rate of perceived exertion scale (6.3.g).

#### Additional resources:

SHAPE America National Standards and Grade-Level Outcomes

Essential Understandings	Essential Knowledge and Skills
Comparing individual scores to health-related criterion-referenced standards	KidsHealth.gov
(Virginia wellness-related fitness standards, FitnessGram, CDC guidelines)	Health Smart Virginia
assists in the analysis, goal setting, problem-solving, and decision making needed	MyPlate.gov
to improve or maintain physical fitness. (6.3.e)	OpenPhysed
<ul> <li>FitnessGram standards for the healthy fitness zones.</li> </ul>	Physical Activity Guidelines for Americans, 2nd
<ul> <li>Scores are evaluated against criterion-referenced standards, called</li> </ul>	ed.
Healthy Fitness Zones. These zones are established to indicate levels	Healthy Children.org
of fitness corresponding with health. Standards have been set for boys	
and for girls based on age and what is optimal for good health. The	
use of health-related criteria helps to minimize comparisons between	
children and emphasizes personal fitness for health, rather than goals	
based solely on performance.	
Setting goals is a fundamental component to long-term success and preparing a	
written plan can improve your adherence to safely execute the plan. (6.3f)	
Activity plans follow fitness and physical activity safety precautions. (6.3.f)	
Perceived exertion is how hard a person feels like their body is working. A rate	
of perceived exertion (RPE) scale is a way of measuring the intensity of physical	
activity. Scales may range from five to 20 levels. (6.3.g)	
Example (variation of Borg scale):	
<ul> <li>Level 1 – Very light activity (watching TV)</li> </ul>	
<ul> <li>Level 2 – Light activity (can maintain for hours, easy to breathe)</li> </ul>	
• Level 3 – Moderate activity (breathing heavily, somewhat comfortable)	
• Level 4 – Vigorous activity (borderline uncomfortable, short of breath)	
<ul> <li>Level 5 – Very hard activity (difficult to maintain exercise intensity,</li> </ul>	

Essential Understandings	Essential Knowledge and Skills
barely breathe)	
• Level 6 – Max effort activity (almost impossible to keep going, out of	
breath)	

### Social and Emotional Development

- 6.4 The student will demonstrate and apply skills of communication, conflict resolution, and cooperation to achieve individual and group goals that apply to working independently and with others in physical activity settings.
  - a) Demonstrate effective communication and creative thinking skills to solve problems, make decisions and resolve conflict with others and promote safe participation in physical activities.
  - b) Compare and critique rules, safety procedures, and etiquette for two different physical activities.
  - c) Develop an improvement plan for a self-selected physical activity, discuss the challenges faced, and reflect on how these challenges were overcome.
  - d) Describe the benefits of competitive and non-competitive physical activities.
  - e) Demonstrate integrity and apply rules/etiquette for a team-building activity.
  - f) Participate in developing student-led classroom activities that promote feelings of inclusion, which supports feelings of acceptance, belonging, and being valued, for all students.

Essential Understandings	Essential Knowledge and Skills
To maintain a positive learning environment, students must demonstrate effective	In order to meet these standards, it is expected that
communication skills, be safe, cooperative, and positively solve problems. (6.4.a)	students will
Effective communication	demonstrate effective communication and
<ul> <li>Listen with eyes and ears.</li> </ul>	creative thinking skills to solve problems,
<ul> <li>Be clear when describing a demonstration or when giving feedback.</li> </ul>	make decisions and resolve conflict with
<ul> <li>Keep information short and simple.</li> </ul>	others and promote safe participation in
Creative thinking skills	physical activities (6.4.a);
<ul> <li>Ability to come up with new solutions to problems.</li> </ul>	compare and critique rules, safety
Problem-solving	procedures, and etiquette for two different
<ul> <li>Identify/define the problem.</li> </ul>	physical activities (6.4.b);
<ul> <li>Generate several solutions.</li> </ul>	develop an improvement plan for a self-
<ul> <li>Evaluate the pros and cons of each solution.</li> </ul>	selected physical activity, discuss the
• Choose a solution.	challenges faced, and reflect on how these
<ul> <li>Implement, document, and reflect on the solution.</li> </ul>	challenges were overcome (6.4.c);

Essential Understandings	Essential Knowledge and Skills
Conflict resolution skills	describe the benefits of competitive and
Able to reduce own stress quickly – calming oneself before addressing	non-competitive physical activities (6.4.d);
the conflict.	<ul> <li>demonstrate integrity and apply</li> </ul>
• Be emotionally aware of yourself and the other person – how are you	rules/etiquette for a team-building activity
feeling, how is the other person feeling.	(6.4.e);
State what the conflict is about	<ul> <li>participate in developing student-led</li> </ul>
<ul> <li>Communication skills</li> </ul>	classroom activities that promote feelings
<ul> <li>Listening carefully to others</li> </ul>	of inclusion, which supports feelings of
<ul> <li>Speaking directly to each other</li> </ul>	acceptance, belonging, and being valued,
<ul> <li>Speaking honestly, and kind</li> </ul>	for all students. (6.4.f)
<ul> <li>Proposing solutions or compromises.</li> </ul>	
Agree on a solution or compromise to try.	Additional resources:
Decision-making skills	OPEN Online Physical Education Network
Identify the decision to be made.	Health Smart Virginia
• List all the possible options.	PE Central
• Evaluate the pros and cons of each option, using criteria such as:	EverFi
<ul> <li>Is this option healthful and does it reflect my beliefs and values?</li> </ul>	KidsHealth.org
o Is this option legal?	
<ul><li>Is this option safe?</li></ul>	
<ul> <li>Is this option respectful to myself and my family?</li> </ul>	
<ul><li>Is this option responsible?</li></ul>	
<ul> <li>Make your decision based on the evaluation of each option.</li> </ul>	
Reflect on the decision that was made.	
Rules promote the safety of the players and the integrity of the game. (6.4.b)	
Safety rules for activities may include rules for equipment (distribution,	
use, and collection), use of space (boundaries, spatial awareness, and	

Essential Understandings	Essential Knowledge and Skills
moving in personal and general space), and activity-specific rules.	
Safety procedures and etiquette allow for safe participation, safe learning, and	
inclusion of all students. (6.4.b)	
• Etiquette is the rules indicating the proper and polite way to behave (e.g., shaking hands/giving high fives/congratulating other teams at the end of a game).	
Learning and practicing self-management skills and determination can help	
individuals develop a new way of thinking when developing an improvement	
plan for a personally challenging skill or activity. (6.4.c)	
Reflecting on performance can assist in developing a plan for improvement. (6.4.c)	
Non-competitive physical activities allow success without any losers, with	
teammates learning that the cooperative process is what is important. (6.4.d)	
Competitive physical activities that allow individuals to work as a decision-	
making team that takes risks, makes decisions, succeeds, and sometimes fails	
will prepare individuals to be confident adults, able to make decisions and work well within a group. (6.4.d)	
Participation in physical activities/sports can provide an opportunity for	
developing an understanding and respect for differences among people. (6.4.e)	
A responsible participant views behaving well and including others as important as playing safely. (6.4.e, 6.4.f)	

Essential Understandings	Essential Knowledge and Skills
Integrity is the quality of being honest and fair. Integrity in physical activity	
settings allow for inclusive, fair, and safe participation for all participants (6.4.f)	
Inclusive practices and safe participation strategies may include adapting	
rules to accommodate a variety of abilities, eliminating or adding time,	
modifications to an activity (e.g., use a beach ball for volleyball), and	
changing or eliminating scoring. (6.4.f)	

## Energy Balance

- 6.5 The student will explain the relationship between energy balance and nutrition guidelines, meal planning, and exercise intensity.
  - a) Create a one-day meal and snack plan based on Recommended Dietary Allowance (RDA), portions, hydration, and sugar.
  - b) Describe the relationship between resting heart rate and exercise intensity.
  - c) Explain the effects of physical activity guidelines on energy expenditure.

Essential Understandings	Essential Knowledge and Skills
Meals and snacks, including beverages, should meet Recommended Dietary	In order to meet these standards, it is expected that
Allowance (RDA) for portions and meet hydration needs. RDA information is	students will
available at the National Institutes of Health (NIH) Office of Dietary	create a one-day meal and snack plan
Supplements website:	based on Recommended Dietary
https://ods.od.nih.gov/HealthInformation/Dietary_Reference_Intakes.aspx.	Allowance (RDA), portions, hydration,
(6.5.a)	and sugar (6.5.a);
Recommended Dietary Allowance (RDA): The recommended minimum	describe the relationship between resting
amount of a nutrient needed for good health.	heart rate and exercise intensity (6.5.b);
	<ul> <li>explain the effects of physical activity</li> </ul>
Planning healthy meals will help the body grow and develop normally and	guidelines on energy expenditure. (6.5.c)
increase overall health and wellness. (6.5.a)	Additional resources:
	SHAPE America National Standards and Grade-
Energy for movement comes from the food we eat (animal and plant sources),	Level Outcomes
which provides energy-rich nutrients. (6.5.a)	KidsHealth.gov
	Health Smart Virginia
Resting pulse is a valuable metric to not only determine your fitness level but	MyPlate.gov
your cardiovascular health. (6.5.b)	OpenPhysed
Examples beaut note and necting beaut note can be used to help determine necessal	Physical Activity Guidelines for Americans, 2nd
Exercise heart rate and resting heart rate can be used to help determine personal	ed.
fitness levels. (6.5.b)	American Heart Association
• In general, a lower heart rate at rest indicates more efficient heart function	

Essential Understandings	Essential Knowledge and Skills
and better cardiorespiratory fitness.	
Intensity level descriptions help a person understand what level of physical	
activity they are engaged in. (6.5.b)	
• In general, the higher your heart rate during physical activity, the higher	
the exercise intensity. The American Heart Association generally	
recommends a target heart rate of moderate exercise intensity: 50% to	
about 70% of your maximum heart rate; and vigorous exercise intensity:	
70% to about 85% of your maximum heart rate.	
Energy expenditure is the energy, in the form of calories, a person uses for	
everyday tasks. (6.5.c)	
Physical activity increases the number of calories your body uses for energy.	
(6.5.c)	
Physical activity guidelines: 150 minutes of moderate-intensity aerobic	
activity, 75 minutes of vigorous-intensity aerobic activity, or an	
equivalent mix of the two each week. Strong scientific evidence shows	
that physical activity can help maintain a healthy weight over time.	