<table>
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<tr>
<th>Days</th>
<th>SOL Objective</th>
<th>Activity</th>
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| 2 Weeks| **PE 9.1 - Motor Skill Development:** The student will perform all basic movement skills and demonstrate movement and biomechanical principles in a variety of activities that may include outdoor pursuits, fitness activities, dance and rhythmic activities, aquatics, individual performance activities, and games and sports (net/wall, striking/fielding, and goal/target(s)).  
  a) Demonstrate proficiency and refinement in locomotor, non-locomotor, and manipulative skills to appropriate activities (e.g., outdoor pursuits, fitness activities, dance and rhythmic activities, aquatics, individual performance activities, and games and sports (net/wall, striking/fielding, and goal/target).  
  b) Design, implement, evaluate, and modify a practice plan for a self-selected skill. Key concepts include the motor learning process of analysis of performance, application of principles of movement and training focus on goal setting and improvement of personal skills, practice, correct, practice at a higher level, and reassess.  
  c) Apply the concepts and principles of levers, force, motion, and rotation in a variety of activities.  
  d) Apply physiological principles of warm-up, cool down, overload, specificity, and progression.  
  e) Apply biomechanical principles of balance, energy, and types of muscle contractions to a variety of activities.  
  f) Demonstrate competency in one or more specialized skills in health-related fitness activities. |
|        | **PE 9.2 - Anatomical Basis of Movement:** The student will explain the structures and functions of the body and how they relate to and are affected by human movement.  
  a) Explain and apply selected scientific principles to include physiological (warm-up, cool down, overload, specificity, and progression), and biomechanical (levers, types of muscle contractions, and force) that aid in the improvement of movement skills.  
  b) Analyze and evaluate proficient and efficient movement in relation to how movement is directed to include type of muscle action that directs a movement (concentric, eccentric, and isometric), direction the body part moves relative to its joints (abduction, adduction, flexion) extension, and planes of movement.  
  c) Apply the concepts and principles of the body's metabolic response to short-term and long-term physical activity.  
  d) Explain the body’s response to the principles of specificity, overload, and... |

- Ultimate Football/Frisbee (Frisbee Golf)
- Soccer
- Tennis
- Softball
- Volleyball
- Badminton
- Handball
- Basketball
- Walking
- Pickleball
- Corn Hole
- Ping-Pong
- Racquetball
- Bowling
- Weight Lifting
- Hoops/Ropes/Walking
progression (SOP) in relation to frequency, intensity, time (duration) and type of exercise (FITT).

e) Explain the anaerobic respiration (ATP-PC and Lactic Acid System) and aerobic respiration systems used for energy during activity.

f) Analyze movement performance and utilize feedback to learn or to improve the movement skills of self and others.

PE 9.3 - Fitness Planning:
The student will evaluate current fitness behaviors and demonstrate achievement and maintenance of a health-enhancing level of personal fitness by designing, implementing, self-assessing, and modifying a personal fitness program.

a) Demonstrate program-planning skills by assessing and analyzing personal fitness levels, setting goals, devising strategies, making timelines for a personal physical fitness plan, and evaluating the components and progress of the personal fitness plan.

b) Apply the FITT (Frequency, Intensity, Time, Type) principle and other principles of training such as overload, specificity, and progression, in accordance with personal goals to the personal fitness plan.

c) Explain the characteristics, including scientific principles and concepts, of safe and appropriate muscular stretching, muscular strengthening, and cardiorespiratory exercise programs to improve the health-related components of fitness.

d) Explain the relationship between heart rate, training zones, and exercise intensity to include measures (e.g., heart rate monitors, pedometers, accelerometers) and appropriate training zones to meet exercise and personal fitness goals.

f) Calculate resting heart rate, target heart rate, and blood pressure.

g) Identify types of strength exercises (isometric, concentric, eccentric) and stretching exercises (static, proprioceptive neuromuscular facilitation, dynamic) for personal fitness development (e.g., strength, endurance, range of motion).

h) Define and describe terms and activities associated to fitness activities to include set, repetition, isometric, isotonic, isokinetic, core, upper body, and lower body exercises.
### PE 9.4 - Social Development:
The student will explain and demonstrate the skills needed to be safe, responsible, and respectful in all physical activity settings.
- a) Explain the body’s physiological response to individual levels of fitness, activity, and nutrition, including the role of sugar, sodium, and fat.
- b) Explain the impact of sport and activities in understanding respect for the unique characteristics, differences and abilities of peers.
- c) Apply conflict resolution skills in physical activity settings.
- d) Identify the opportunity for social support in a self-selected activity.
- e) Apply communication skills and strategies that promote positive team/group dynamics.
- f) Apply problem-solving and critical-thinking skills in physical activity settings, both as an individual and in groups.
- g) Apply best practices for participating safely in physical activity, exercise, and dance (e.g., injury prevention, proper alignment, hydration, use of equipment, implementation of rules, sun protection).
- h) Analyze and compare psychological benefits derived from various physical activities (e.g., decreased stress and anxiety, increased self-esteem, increased mental alertness, and improved mood).

### PE 9.5 - Energy Balance:
The student will explain the importance of energy balance and evaluate current caloric intake and caloric expenditure to maintain optimal health and prevent chronic disease.
- a) Explain the body’s physiological response to individual levels of fitness, activity, and nutrition, including the role of sugar, sodium, and fat.
- b) Explain the body’s physiological responses to individual levels of fitness, activity, and nutrition.
- c) Assess and analyze current energy balance to include intake and expenditure, activity levels, food choices, and amount of sleep.
- d) Explain body composition using body mass index (BMI) and other measures, the variety of body types, and healthy body weight.
- e) Design and implement a plan to maintain an appropriate energy balance for a healthy, active lifestyle (intake, expenditure - levels of intensity, and sleep).
## MONTGOMERY COUNTY PUBLIC SCHOOLS
10th Physical Education Curriculum Pacing Guide

<table>
<thead>
<tr>
<th>Days</th>
<th>Standard</th>
<th>Activity</th>
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| 2 Weeks  | **PE 10.1 - Motor Skill Development:** The student will demonstrate proficiency and apply the concepts and principles of exercise physiology, biomechanics, and anatomy in a variety of lifetime activities that may include outdoor pursuits, fitness activities, dance and rhythmic activities, aquatics, selected individual performance activities, and net/wall and target games.  
   a) Demonstrate skill attainment in one or more lifetime activities.  
   b) Apply and demonstrate knowledge of how movement is created, directed, and stabilized in one or more lifetime activities.  
   c) Identify and demonstrate movement activities in each plane of movement (frontal, sagittal, and transverse) and activities that occur in multiple planes.  
   d) Demonstrate appropriate and proper use of equipment in one or more lifetime activities. | Ultimate Football/Frisbee (Frisbee Golf)  
Soccer  
Tennis  
Softball  
Volleyball  
Badminton  
Handball  
Basketball  
Fishing  
Bowling  
Weight Lifting  
Walking |
|         | **PE 10.2 - Anatomical Basis of Movement:** The student will knowledge of biomechanics and anatomy and analyze and evaluate the ability to move proficiently and efficiently in a variety of lifetime activities.  
   a) Explain how the body responds to energy needs for anaerobic and aerobic activities to include fast twitch and slow twitch muscle fibers, and anaerobic respiration (ATP-PC and Lactic Acid System) and aerobic respiration.  
   b) Analyze movement activities for component skills and movement patterns for one or more lifetime activities.  
   c) Identify and explain the relationship of opposing muscle groups (agonist/antagonist).  
   d) Design and implement a program for strength and conditioning.  
   e) Explain why blood pressure is an indicator of personal health.  
   f) Apply rate of perceived exertion (RPE) and pacing to a conditioning plan that meets the needs of one or more lifetime activities. | Ultimate Football/Frisbee (Frisbee Golf)  
Soccer  
Tennis  
Softball  
Volleyball  
Badminton  
Handball  
Basketball  
Corn Hole  
Ping-Pong  
Racquetball  
Bowling  
Weight Lifting  
Hoops/Ropes/Walking  
Wii/Connect |
**PE 10.3 - Fitness Planning:**
The student will demonstrate the ability to apply basic principles of training and scientific concepts and principles to evaluate current fitness behaviors and identify strategies needed for health-enhancing fitness for the present and into adulthood.

- **a)** Create a fitness and activity plan for the present and a potential plan for the future (postsecondary education, college/career) to address the health-related components of fitness.
- **b)** Use a variety of resources, including available technology, to analyze current fitness and activity levels, and to improve physical activity and personal fitness.
- **c)** Identify fitness needs to prevent health concerns in the present and into the future.
- **d)** Identify the impact of life choices, economics, motivation, accessibility, exercise adherence, and participation in physical activity in college or career settings.
- **e)** Describe components of health-related fitness in relation to one career goal.
- **f)** Explain the impact of physical activity on emotional and social well-being for the present and into the future.

**Fitness Testing**

| Ultimate Football/Frisbee (Frisbee Golf) |
| Soccer                              |
| Tennis                               |
| Softball                             |
| Volleyball                           |
| Badminton                            |
| Handball                             |
| Basketball                           |
| Corn Hole                            |
| Ping-Pong                            |
| Racquetball                          |
| Bowling                              |
| Weight Lifting                       |
| Hoops/Ropes/Walking                  |
| Wii/Connect                          |

**PE 10.4 - Social Development:**
The student will demonstrate appropriate behaviors in all physical activity settings and the social skills needed to be a contributing member of society.

- **a)** Explain the importance of and demonstrate communication skills in physical activity settings.
- **b)** Explain the importance of critical thinking and problem solving for current and future health and fitness.
- **c)** Identify and avoid potentially dangerous situations in physical activity settings.
- **d)** Explain the importance of understanding cultural diversity for personal health and fitness.
- **e)** Evaluate opportunities for social interaction and social support in a self-selected physical activity or dance.
- **f)** Apply stress-management strategies (e.g., mental imagery, relaxation techniques, deep breathing, aerobic exercise, meditation) to reduce stress.
- **g)** Explain possible benefits of mind-body exercise/activities (e.g., Yoga, Tai Chi, and Pilates).
- **h)** Explain the importance of conflict resolution for current and future health and fitness.
PE 10.5 - Energy Balance:
The student will explain the importance of energy balance and evaluate current caloric intake and caloric expenditure to maintain optimal health and prevent chronic disease for the present and into adulthood
   a) Analyze the relationships among physical activity, nutrition, body composition, and sleep that are optimal for personal health and/or for participation in a lifetime activities.
b) Evaluate current activity and intensity levels.
c) Evaluate current and future caloric expenditure and intake needs.
d) Evaluate current and future sleep needs.
e) Evaluate the caloric intake needs for before, during and after a variety of lifetime activities.
f) Explain energy balance (caloric expenditure vs. caloric intake) in relation to changing needs from adolescence through adulthood.
g) Explain the consequences of over-exercising.

Ultimate Football/Frisbee (Frisbee Golf)
Soccer
Tennis
Softball
Volleyball
Badminton
Handball
Basketball
Corn Hole
Ping-Pong
Racquetball
Bowling
Weight Lifting
Hoops/Ropes/Walking