| ***Physical Education Grade 10 Unit 15: Fitness, Skill Development, and Conditioning through Cardiovascular Exercise (Aerobics)*** ***March***  |
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| **Targeted Standards** **2020 New Jersey Student Learning Standards – Comprehensive Health and Physical Education** **2.2 Physical Wellness by the End of Grade 12** **Movement Skills and Concepts** Advanced technique and concepts will elevate a student's confidence, performance, skills, and participation in physical activity (e.g., games, sports, aerobics, fitness activities). • 2.2.12.MSC.1: Explain and demonstrate ways to apply movement skills from one game, sport, aerobics, or recreational activity to another including striking skills (e.g., tennis, badminton, ping pong, racquetball, pickleball). • 2.2.12.MSC.2: Analyze application of force and motion (e.g., weight transfer, power, speed, agility, range of motion) and modify movement to impact performance. The quality of feedback from others, self assessment as well as effort and repetition influences movement skills, concepts, and performance. • 2.2.12.MSC.3: Design, lead and critique rhythmic and physical activity that includes variations in time, space, force, flow, and relationships (e.g., creative, cultural, social, aerobics dance, fitness). Individual and team execution requires interaction, respect, effort, and a positive attitude. • 2.2.12.MSC.4: Analyze etiquette, responsibilities, and preparation of players, officials, trainers, and other participants and recommend strategies to improve their performance, participation, and behavior. • 2.2.12.MSC.5: Develop rule changes to existing games, sports, and activities that enhance participation, safety, and enjoyment. **Physical Fitness** Physical and emotional growth often relies on taking personal responsibility for developing and maintaining physical fitness levels that also provide opportunities for self expression, enjoyment, and emotional satisfaction. • 2.2.12.PF.1: Compare the short- and long-term benefits of physical activity and the impact on wellness associated with physical, mental, emotional fitness through one's lifetime. • 2.2.12.PF.2: Respect and appreciate all levels of ability and encourage with care during all physical activities. • 2.2.12.PF.3: Design and implement a personal fitness plan, using evidence and evaluate how that reflects knowledge and application of fitness-training principles (FITT) and the components of skill related fitness. • 2.2.12.PF.4: Determine the role of genetics, age, nutrition, sleep, the environment, and exercise type on body composition and personal health (e.g., anabolic steroids, human growth hormones, stimulants). • 2.2.12.PF.5: Analyze fitness knowledge in strength, conditioning, agility, and the physiological responses of the energy systems effects on the mind and body before, during, and after physical fitness activities. **Lifelong Fitness** Healthy habits and behaviors are created by personal learning experiences, knowledge, beliefs, and goals towards living and maintaining a healthy lifestyle of fitness, self-expression, social interaction, and enjoying movement in a safe and healthy environment (e.g., golf, tennis, badminton, martial arts, bowling, kayaking, ping-pong, cricket, hiking, biking, swimming). • 2.2.12.LF.1: Apply and share a movement and physical fitness vocabulary that is intrinsic to motivate oneself, to impact family, and others in a community. • 2.2.12.LF.2: Develop a sense of openness and willingness when participating in physical fitness activity to share and learn experiences from your own and other cultures. • 2.2.12.LF.3: Examine building to a level of fitness to successfully participate in a range of different physical activities during a lifetime. • 2.2.12.LF.4: Exhibit responsible social behavior by including and cooperating with classmates of all skill levels, assisting when needed, and collaborating respectfully to solve problems in groups, teams, and in pairs during physical activity. • 2.2.12.LF.5: Describe the social benefits gained from participating in physical activity (e.g., meeting someone, making friends, team work, building trust, experiencing something new). Community resources can support a lifetime of wellness to self and family members. • 2.2.12.LF.6: Implement a financial plan for participation in physical activity in the community for self and family members. • 2.2.12.LF.7: Analyze the current and future impact of globalization and technology on the influences of participation in sports, games, physical fitness activities, dance, gaming, outdoor adventure, viewing sports, and social and emotional connections. • 2.2.12.LF.8: Identify personal and community resources to explore career options related to physical activity and health. **Nutrition** The balance of food intake and exercise is a vitally important component of nutritional wellness, and is tempered by factors like age, lifestyle, and family history. • 2.2.12.N.1: Compare and contrast the nutritional trends, eating habits, and the impact of marketing foods on adolescents and young adults nationally and worldwide. • 2.2.12.N.2: Determine the relationship of nutrition and physical activity to weight loss, gain, and maintenance. • 2.2.12.N.3: Analyze the unique contributions of each nutrient class (e.g., fats, carbohydrates, protein, water, vitamins, minerals) to one’s health and fitness. • 2.2.12.N.4: Implement strategies and monitor progress in achieving a personal nutritional health plan. • 2.2.12.N.5: Research recent trends in plant based and organic food choices and industries that have shown an impact on lowering heart, cancer, diabetes, and other diseases.  |
| **Rationale and Transfer Goals**: Aerobics is designed to improve cardiovascular endurance. Participants will burn fat calories while improving their capacity for exercise. Taebo is a fun way of doing cardiovascular exercise. |
| **Enduring Understandings:** • Factors such as health status, interests, environmental conditions, and available time have impact on personal fitness.• There is a progression of activity that will improve each component of fitness and skill level. |
| **Essential Questions**: • How might the short- and long-term physical, social, and emotional benefits and potential problems associated with regular physical activity affect you.• What are some different ways you can measure an individual’s fitness level?• What are the basic components of physical fitness? |
| **Content/Objectives** | **Instructional Actions** |
| **Content*****What students will know*** | **Skills*****What students will be able to do*** | **Activities/Strategies*****How we teach content and skills*** | **Evidence (Assessments)*****How we know students have learned*** |
| • The sign and systems of fatigue.• The expectable range of performance for their age group and gender.• The long and short term physical, social, and emotional benefits associated with regular physical activity. | • Employ strategies to improve communication and listening skills and assess their effectiveness.• Engage in a variety of sustained, vigorous physical activities to enhance each component of fitness. • Perform at a level needed to enhance cardiovascular fitness.• Evaluate, monitor, and improve their fitness level. | • Jump rope for 1 min 5x• Wall seat for 1 min 5x• 50 crunches 3x• Forearm bridge 30 sec 3x• 15 min taebo work out• 30 min advanced taebo work out* Cardio circuit
* Dance
 |  How we know students have learned ParticipationSample Assessment ItemStudents will be graded on participation in workouts. 15 Standards Assessed |
| **Spiraling for Mastery**  |
| **Content or Skill for this Unit** | **Spiral Focus from Previous Unit** | **Instructional Activity** |
| * Can appropriately participate in activities that promote lifetime wellness and know these activities can include cardiorespiratory endurance, muscular strength, muscular endurance, body composition, and flexibility.
* Is able to incorporate communication, cooperation, and problem solving into their goal setting.
* Displays respectful behaviors towards all classmates
* Can pace to gain peak performance.
* Can set short and long term goals to improve performance in activity.
* Can recognize and perform exercises to increase strength and/or endurance.
 | * Locomotive skills
* Dancing skills (figure 8, ball and chain, slide, turn, etc.
* Flexibility
 | * Daily Warm –Up activities

    Flexibility    Cardiovascular Endurance           High knees           Butt kicks                    Jumping Jacks                    Running                    Carioca                    Shuffle* Jog/ walk the track
* Circuit exercises
* Jump rope
* Step aerobics
* Tag Games
* Skill development Activities
* Presidential Fitness Testing
* Triangle tag
* Partner Tag
* Marker Relay
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| **21st Century Skills:** **CRP3. Attend to personal health and financial well-being.**Unit focus on personal healthCross-cutting discussions of financial costs and benefits to lifelong fitness**CRP6. Demonstrate creativity and innovation.**Creativity in development of workout plans for variety and maintaining interest**CRP11. Use technology to enhance productivity.**Use of online and mobile technology to support lifetime health and fitness goals **CRP12. Work productively in teams while using cultural global competence.**Students will work in small groups to create, problem solve, and participate in games**CRP4. Communicate clearly and effectively and with reason.*** all aspects of course
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| **Key resources:** * jump ropes
* taebo video
* exercise mats
* [www.pecentral.com](http://www.pecentral.com/)
* <http://www.sparkpe.org/>
* <http://www.lessonplanet.com/teachers/5678-line-dance?page=1>
* *Fitness For Life* (book)
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| **Interdisciplinary Connections****ELA****NJSLSA.R1**. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.**NJSLSA.R7.** Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.**RH.9-10.7.** Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text, to analyze information presented via different mediums. **RST.9-10.2.** Determine the central ideas, themes, or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.**RST.9-10.3.** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.**RST.9-10.7.** Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.**NJSLSA.W4.** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.**NJSLSA.W7.** Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation. * standards supporting written and print communication across all areas of the course

**Science****HS-LS1-3.** Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. [Clarification Statement: Examples of investigations could include heart rate response to exercise]**HS-LS2-3.** Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.**HS-LS2-8.** Evaluate evidence for the role of group behavior on individual and species’ chances to survive and reproduce.* Connections to study of exercise physiology and associated anatomy
* Basic understanding of communicability of diseases in discussion of wellness

**Math****Creating Equations A -CED**A. Create equations that describe numbers or relationships. 1. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.***Modeling with Geometry G-MG**A. Apply geometric concepts in modeling situations. 1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).**Interpreting Categorical and Quantitative Data S-ID N-ILN**A. Summarize, represent, and interpret data on a single count or measurement variable1. Represent data with plots on the real number line (dot plots, histograms, and box plots).**Making Inferences and Justifying Conclusions S-IC**B. Make inferences and justify conclusions from sample surveys, experiments, and observational studies* math processes related to fitness and health data, geometry in gameplay, and quantitative representations
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