Readington Township Public Schools

Kinesiology

Authored by: Blair Alber Crossley and Kevin Sanders

Reviewed by: Sarah Pauch Supervisor of Math, Science, and Technology

Approval Date: August 20, 2024

Members of the Board of Education:

Dr. Camille Cerciello, President
Ellen DePinto
Elizabeth Fiore
Paulo Lopes
Michele Mencer
Randall Peach
Carolyn Podgorski
Justina Ryan
Jennifer Wolf

Superintendent: Dr. Jonathan Hart

Readington Township Public Schools

www.readington.k12.nj.us

I. OVERVIEW (Summary of what students will learn, Narrative)

Middle school is a crucial developmental stage where habits and attitudes towards health and physical activity are formed. Introducing kinesiology at this age provides students with fundamental knowledge about their bodies and how to maintain physical well-being, laying a foundation for a lifetime of healthy choices. Teaching kinesiology helps students understand the significant physical changes that occur during adolescence such as growth spurts and muscle development, fostering self-awareness and body positivity during this transformative period. Learning basic kinesiology equips them with knowledge of body mechanics, posture, and movement patterns, reducing the likelihood of injuries and promoting safer participation in physical activities. By understanding how their bodies function and respond to exercise, students can optimize their performance in sports and other physical activities. Knowledge of kinesiology enables them to apply principles to improve their strength, flexibility, endurance, and overall athletic ability. Teaching a basic kinesiology course provides interdisciplinary learning opportunities while expanding vocabulary and reinforcing concepts from other subjects while demonstrating their real-world applications. Introducing students to kinesiology at a young age can spark interest in potential career paths in health and fitness-related fields. By exposing them to concepts such as exercise science, physical therapy, and sports medicine, educators can inspire students to consider future careers in these rewarding professions.

II. STUDENT OUTCOMES (NJSLS Standards; Comprehensive Health & P.E. NJSLS 2020: Grades 6-8)

Personal Growth and Development

Personal Growth and Development are lifelong processes of physical, behavioral, emotional, and cognitive change throughout one's lifetime. Personal Growth and Development pertain to keeping your body healthy and understanding hormonal changes (all body systems) and their impact on sexuality. It encompasses the human condition: who we are, how we grow or evolve, and how interaction with others affects the process of growth physically, mentally, socially, and emotionally from infancy through advanced age.

By the end of grade 8

- Individual actions, genetics, and family history can play a role in an individual's personal health.
- Responsible actions regarding behavior can impact the development and health of oneself and others.

Core Ideas	Performance Expectations
Individual actions, genetics, and family history can play a role in an individual's personal health.	2.1.8.PGD.1: Explain how appropriate health care can promote personal health.
Responsible actions regarding behavior can impact the development	2.1.8.PGD.4: Analyze the relationship between healthy behaviors and personal health.

	nd health of oneself nd others.	
--	------------------------------------	--

Movement Skills and Concepts

Movement Skills and Concepts include learning and investigating the fundamentals of movement (on land, water, snow, sand, and ice) from one place to another and the understanding of biomechanics (how the body moves, grows, and matures). Movement skills fall into three main categories: locomotor, non-locomotor, and manipulative skills. Concepts into categories such as spatial awareness (where the body moves), body awareness (what can the body do), and qualities of movement (how the body moves and with whom/what does the body move).

By the end of grade 8

- Effective execution of movements is determined by the level of related skills, provides the foundation for physical competency and literacy to participate with confidence in a broad range of physical activities (e.g., games, sports, aerobics, martial arts, recreational activities).
- Feedback from others and self-assessment impact the performance of movement skills and concepts.
- Individual and team goals are achieved when applying effective tactical strategies in games, sports and other physical fitness activities.

Core Ideas	Performance Expectations
Effective execution of movements is determined by the level of related skills and provides the foundation for physical competency and literacy to participate with confidence in a broad range of physical activities (e.g., games, sports, aerobics, martial arts, recreational activities).	 2.2.8.MSC.1: Explain and demonstrate the transition of movement skills from isolated settings (e.g., skill practice) into applied settings (e.g., games, sports, dance, recreational activities). 2.2.8.MSC.3: Create and demonstrate planned movement sequences, individually and with others, based on tempo, beat, rhythm, music, and physical activities (e.g., creative, cultural, social, fitness aerobics, dance, yoga).
Feedback from others and self-assessment impacts performance of movement skills and concepts.	2.2.8.MSC.4: Analyze, and correct movements and apply to refine movement skills.

Physical Fitness

Physical Fitness is the ability to move, and perform daily tasks and unexpected physical challenges effectively without losing energy reserves. Fitness activities can be performed at many levels (low, moderate, and high), which will impact how efficiently the body functions.

By the end of grade 8

• A variety of effective fitness principles applied consistently over time, enhance personal fitness levels, performance, and health status (e.g., Frequency, Intensity, Time, Type (F.I.T.T).

Core Ideas	Performance Expectations
A variety of effective fitness principles applied consistently over time, enhance personal fitness levels, performance, and health status (e.g., Frequency, Intensity, Time, Type (F.I.T.T).	 2.2.8.PF.1: Summarize the short and long-term physical, social, mental, and emotional health benefits of regular physical fitness activity. 2.2.8. PF.4: Implement and assess the effectiveness of a fitness plan based on health data, the assessment of one's personal fitness levels and monitor health/fitness indicators before, during, and after the workout program. 2.2.8.PF.5: Use evidence to predict how factors such as health status, body composition, interests, environmental conditions, healthy eating, anabolic steroids, physical activity, and lifestyle behaviors impact personal fitness and health.

Lifelong Fitness

Lifelong Fitness requires making fitness a part of a person's daily life. It is about creating fitness habits that support individuals to plan and stay healthy throughout their lifetime. In addition, a person recognizes the medical consequences of a sedentary lifestyle and that the benefits of an active body and mind over time reduce diseases, injuries, and pain. Lifelong fitness doesn't focus on competition or high-level skill development, but rather on self-evaluation, personal goal setting, social engagement, sportsmanship, enjoyment of movement, and leisure-time fitness activities.

By the end of grade 8

- Effective fitness principles combined with mental and emotional endurance over time will enhance performance and wellness.
- Community resources can provide participation in physical activity for self and family members.

Core Ideas	Performance Expectations
Effective Fitness principles combined with mental and emotional endurance over time will enhance performance and wellness.	 2.2.8.LF.1: Develop and build an effective movement and physical fitness vocabulary for self, peers, and family members that can enhance wellness. 2.2.8.LF.2: Explain the importance of assuming responsibility for personal health behaviors through physical activity throughout one's lifetime. 2.2.8.LF.3: Explore by leading self and others to experience

	 and participate in different cultures' physical fitness activities. 2.2.8.LF.4: Identify and recognize factors that generate positive emotions from participating in movement and physical fitness activities. 2.2.8.LF.5: Engages in a variety of physical activities (e.g., aerobic-fitness, strengthen, endurance-fitness activities) using technology and cross-training, and lifetime activities.
Community resources can provide participation in physical activity for self and family members.	 2.2.8.LF.6: Develop a strategy to overcome barriers that allows for a visit in the community that promotes physical activities. 2.2.8.LF.7: Evaluate personal attributes as they relate to career options in physical activity and health professions.

Comprehensive Health and Physical Education Practices

Attending to personal health, emotional, social and physical well-being

Individuals who possess health, emotional, social, and physical literacy understand the relationship between the body and the mind. They create and implement a personal self-care plan that promotes a healthy lifestyle. They recognize the importance of a healthy diet, and regular exercise, and promote mental health activities that lead to healthier behaviors. They also take regular actions that contribute to their personal, emotional, and social well-being by regulating emotions, understanding personal self-care, and engaging in appropriate self-expression. Establishing outlets that are safe and take place in healthy environments allows for positive social interaction for self and others. They recognize that an active body promotes an active healthy mind that contributes to their overall health.

Engaging in an active lifestyle

Individuals who possess health and physical literacy understand the importance of wellness and being active throughout their lifetime. They understand that daily activity is crucial to establishing and maintaining good health habits of regular exercise, a balanced diet, and healthy social and mental activities that encourage help-seeking skills. They know that an active lifestyle lowers the risk of cardiovascular diseases by strengthening the immune system. They also take regular action to contribute to their active lifestyle with regular health exams, a personalized fitness plan, and a balanced daily schedule that provides the peace of mind and satisfaction required to fully enjoy an active lifestyle.

Setting goals

Individuals who possess health and physical literacy are focused with a plan in mind and a task to complete. They set high but realistic standards, prioritize responsibilities, utilize time wisely and think short and long-term to achieve the intended results. Goal-setters are organized, self-directed, highly motivated, curious, and desirous of living healthy and productive lives.

III. COURSE OBJECTIVES (Content categories and subcategories, outline)

Introduction Students will be able to:

- Define Kinesiology
- o Identify the purpose, benefits, and practical implications of kinesiology
- Identify their own goals of what they want to achieve by the end of this course

Planes of Human Movement

Students will be able to:

- Describe the sagittal, frontal, and transverse planes
- o Physically move through the planes of movement
- o Identify movements and exercises that move through the planes

• Terms to Describe Movement

Students will be able to:

- Identify the terms to describe movement
- Research exercises that display the movement
- Research muscles that carry out those exercises
- Demonstrate exercises and identify muscles that describe movement

• Terms that Describe Direction

Students will be able to:

- Identify terms
- Utilize terms through practical application
- Reinforce terms while applicable throughout the course

Types of Joints

Students will be able to:

- Describe the types of joints
- Identify examples of these joints
- Demonstrate movements that use these joints

Muscles That Move Joints

Students will be able to:

- Identify major muscles that are responsible for movements
- Identify/Demonstrate how to strengthen muscles
- Identify/Demonstrate how to stretch muscles

IV. STRATEGIES

Strategies may include but are not limited to:

- Group discussions
- Teacher presentation
- Student projects
- Guided groups
- One-to-one instruction
- Interactive SmartBoard lessons
- Tutorials
- Online practice

V. EVALUATION

Assessments may include but are not limited to:

- Teacher Observations
- Class Participation
- Class Discussions
- Class Assignments
- Student Projects
- Quizzes
- Anecdotal Records
- Presentations

VI. REQUIRED RESOURCES

- Chromebooks
- https://www.getbodysmart.com/

Supplemental Resources may include, but are not limited to:

- https://cerrocoso.libguides.com/oer/kinesiology
- YouTube.com
- Staugaard-Jones, Jo Ann, <u>The Anatomy of Exercise & Movement for the study of dance, pilate, sports, and yoga</u>

VII. SCOPE AND SEQUENCE

- Introduction & Planes of Human Movement (10 Days)
 - o Define Kinesiology
 - Create Goals
 - o Sagittal, Frontal, Transverse Planes
- Practical Application (20 Days)
 - o Terms to Describe Movement
 - o Terms that Describe Direction
 - Types of Joints
 - o Muscles that Move Joints
- Interest-Based Product (10 Days)
 - Research
 - o Demonstrate