

# MICHIGAN TEST FOR TEACHER CERTIFICATION (MTTC)

## TEST OBJECTIVES FIELD 044: PHYSICAL EDUCATION

Subarea	Approximate Percentage of Questions on Test
Physical Activity, Fitness, and Health	17%
Movement and Lifelong Physical Activities	27%
Growth, Development, and Learning	14%
Planning, Instruction, and Assessment	14%
Management, Motivation, and Communication	14%
Foundations, Reflection, and Professional Collaboration	14%

### I. PHYSICAL ACTIVITY, FITNESS, AND HEALTH

#### **001 Demonstrate knowledge of concepts related to physical activity and fitness.**

Includes relationships among physical activity, fitness, and health; the effects of physical activity and inactivity; basic principles of fitness development; developmentally appropriate fitness goals; energy systems used during exercise; the importance of physical activity and fitness to the health and well-being of individuals; and the effects of lifestyle choices on health-related fitness.

#### **002 Demonstrate knowledge of strategies for developing and maintaining a healthy level of cardiorespiratory endurance.**

Includes basic principles of aerobic conditioning; skills, activities, and equipment appropriate for promoting cardiorespiratory endurance; appropriate warm-up and cool-down exercises; and techniques for assessing cardiorespiratory endurance.

#### **003 Demonstrate knowledge of strategies for developing and maintaining a healthy level of muscular strength and endurance.**

Includes basic principles of strength and endurance training; skills, activities, and equipment appropriate for promoting muscular strength and endurance; appropriate warm-up and cool-down exercises; and techniques for assessing muscular strength and endurance.

#### **004 Demonstrate knowledge of strategies for developing and maintaining a healthy level of flexibility.**

Includes basic principles of developing flexibility; skills and activities appropriate for promoting the flexibility of selected joints of the body; appropriate warm-up and cool-down exercises; safety considerations for static and dynamic stretching; and techniques for assessing flexibility.

**TEST OBJECTIVES**  
**FIELD 044: PHYSICAL EDUCATION**

**005 Demonstrate knowledge of strategies for developing and maintaining a healthy level of body composition.**

Includes basic principles and concepts related to body composition; the relationship between body composition and health; the effects of exercise and training on body composition; the influence of heredity on body composition; and techniques for assessing body composition.

**II. MOVEMENT AND LIFELONG PHYSICAL ACTIVITIES**

**006 Apply principles of biomechanics to movement activities.**

Includes principles related to motion, stability and balance, force production and absorption, buoyancy, rotation, speed, acceleration, and other biomechanical concepts; and the application of these principles to various movement activities.

**007 Demonstrate knowledge of basic principles related to fundamental motor skills.**

Includes concepts of body awareness, time, space, direction, force of movement, and rhythm; and techniques for assessing fundamental motor skills individually and in combination.

**008 Demonstrate knowledge of methods for developing locomotor skills.**

Includes types and characteristics of locomotor skills; activities for promoting these skills that are appropriate for various developmental levels; and techniques for assessing these skills.

**009 Demonstrate knowledge of methods for developing object control skills.**

Includes types and characteristics of object control skills; activities for promoting these skills that are appropriate for various developmental levels; and techniques for assessing these skills.

**010 Demonstrate knowledge of methods for developing postural nonlocomotor skills.**

Includes types and characteristics of postural nonlocomotor skills; activities for promoting these skills that are appropriate for various developmental levels; and techniques for assessing these skills.

**011 Demonstrate knowledge of methods for developing rhythmic skills.**

Includes techniques and activities involving creative movement sequences and rhythm; techniques, sequences, and skills for various forms of dance; activities that are appropriate for various developmental levels; and techniques for assessing these skills.

**TEST OBJECTIVES**  
**FIELD 044: PHYSICAL EDUCATION**

**012 Apply knowledge of skills, rules, and safety practices for individual, dual, and team sports.**

Includes techniques, skill progressions, rules, safety practices, and types of equipment for individual, dual, and team sports; activities that are appropriate for various developmental levels; and techniques for assessing skills in these areas.

**013 Apply knowledge of skills, rules, and safety practices for recreational activities and outdoor pursuits.**

Includes techniques, skill progressions, rules, safety practices, and types of equipment for recreational activities and outdoor pursuits; activities that are appropriate for various developmental levels; and techniques for assessing skills in these areas.

**III. GROWTH, DEVELOPMENT, AND LEARNING**

**014 Demonstrate knowledge of the organic structures of the human body.**

Includes the basic structures, organization, and functions of the body's systems (e.g., circulatory, respiratory, musculoskeletal, nervous); how these systems adapt to physical activity; how these systems contribute to motor performance and fitness; and how these systems are interrelated and interdependent.

**015 Demonstrate knowledge of physical growth and development.**

Includes stages and characteristics of physical growth and development between infancy and adulthood; individual variations in growth and development; characteristics of motor and perceptual motor development; factors that influence growth and development (e.g., heredity, nutrition, environment); the relationship between students' growth and development and their learning; and the ways physical activity or inactivity influence growth and development.

**016 Demonstrate knowledge of how individuals grow and develop cognitively, socially, and emotionally.**

Includes characteristics of cognitive, psychosocial, and emotional development during childhood, preadolescence, adolescence, and adulthood; the ways physical activity and inactivity influence growth and development in these areas; the influence of expectations related to gender, body image, skill level, and culture on the development of self-concept; and the influence of peers on students' social attitudes and behaviors.

**TEST OBJECTIVES**  
**FIELD 044: PHYSICAL EDUCATION**

**017 Demonstrate knowledge of how students differ in their approaches to learning in a physical education setting.**

Includes the characteristics of different learning styles (e.g., visual, auditory, kinesthetic) and multiple intelligences (e.g., linguistic, logical-mathematical, interpersonal); basic elements of various learning theories (e.g., social learning theory, health belief model, transtheoretical model); ways these theories are applied in a physical education setting; and ways learning in physical education is influenced by various factors (e.g., special/diverse needs, personal experiences and circumstances, culture, health).

**IV. PLANNING, INSTRUCTION, AND ASSESSMENT**

**018 Demonstrate knowledge of instructional design and planning for physical education.**

Includes techniques for planning physical education lessons to achieve program goals and objectives; knowledge of selected types of curricula and curricular models (e.g., sport education model, physical fitness model, movement education model); design of instructional sequences and learning experiences that maximize learner participation and success; principles of effective instruction (e.g., giving clear explanations, conducting demonstrations, providing feedback); the importance of assessing lesson plans and revising them based on student needs and changing circumstances; and the uses of a variety of equipment and resources (e.g., computers, videotapes, local experts) to enhance learning in a physical education setting.

**019 Apply developmentally appropriate instructional strategies in a physical education setting.**

Includes techniques for implementing instructional strategies in a physical education setting based on developmental levels, learning styles, available resources, and safety issues; techniques for promoting students' problem-solving and critical-thinking strategies; techniques, advantages, and limitations of various instructional strategies (e.g., cooperative learning, direct instruction, interdisciplinary instruction); roles the teacher can assume to facilitate learning (e.g., model, assessor, monitor); methods for modifying physical education activities to accommodate students with disabilities; strategies for working with students for whom English is not their primary language; and instructional strategies that are sensitive to students' personal, family, cultural, and community experiences.

**TEST OBJECTIVES**  
**FIELD 044: PHYSICAL EDUCATION**

**020 Demonstrate knowledge of safety concerns and procedures related to physical education programs.**

Includes the principles of instructional organization and management that promote student safety; methods for conducting environmental checks of equipment, field, and movement space; exercises and body positions that are indicated and those that are contraindicated in physical education activities; and principles and techniques of basic first aid and CPR.

**021 Demonstrate knowledge of formal and informal assessment strategies to evaluate the physical, cognitive, social, and emotional development of learners in a physical education setting.**

Includes the characteristics, uses, advantages, and limitations of different types of assessment (e.g., motor performance and physical fitness, portfolio and authentic assessments); rationales for selecting and using developmentally appropriate assessment strategies and instruments; measurement issues (e.g., validity, reliability, bias); the use of assessment as an integral part of physical education instruction to provide feedback to learners; strategies for involving students in self-assessment; and interpretation and use of performance data to make instructional decisions and report progress.

**V. MANAGEMENT, MOTIVATION, AND COMMUNICATION**

**022 Demonstrate knowledge of principles and methods of instructional management in a physical education setting.**

Includes the importance of and strategies for establishing a positive climate that promotes mutual respect, support, safety, and cooperative participation in the physical education setting; methods for organizing, allocating, and managing resources (e.g., time, space, equipment, activities, teacher attention); and management techniques that create a smoothly functioning learning environment and maximize learner participation in physical education activities.

**023 Demonstrate knowledge of factors related to individual and group motivation in a physical education setting.**

Includes factors related to intrinsic motivation; methods for motivating learners to participate in developmentally appropriate physical activities inside and outside of school; strategies for positive behavior change; the use of appropriate motivational strategies to meet the needs of individuals; and strategies to help learners become self-motivated.

**TEST OBJECTIVES**  
**FIELD 044: PHYSICAL EDUCATION**

**024 Demonstrate knowledge of positive personal and social traits that can be fostered within the context of physical activity.**

Includes the contribution and value of physical activity to lifelong health and well-being; the potential social-cultural benefits of participation in physical activities; ways positive traits (e.g., confidence, self-discipline, cooperation) can be promoted through involvement in physical activities; and strategies that help learners acquire responsible personal and social behaviors.

**025 Demonstrate knowledge of effective communication techniques to foster inquiry, collaboration, and engagement in physical activity.**

Includes characteristics and uses of various communication techniques (e.g., verbal, visual, kinesthetic); the appropriate use of verbal and nonverbal cues; how personal differences (e.g., cultural, economic, environmental) affect communication; ways to foster sensitive interactions with and among learners; and strategies for communicating managerial and instructional information in a variety of ways (e.g., bulletin boards, task cards, music, computers and other technologies).

**VI. FOUNDATIONS, REFLECTION, AND PROFESSIONAL COLLABORATION**

**026 Demonstrate knowledge of the foundations of physical education.**

Includes the historical development of and cultural contributions to physical education; philosophies and contributions of innovators in the field; various games, sports, and physical activities that have become popular at different times; goals and objectives of physical education; and current philosophies, trends, and practices in physical education programs.

**027 Demonstrate knowledge of the importance of physical education and fitness to students.**

Includes the importance of developing physically educated individuals; the relationships between physical education content and the content of other subject matter areas; strategies for promoting lifelong fitness; ways physical activity can foster self-expression and provide enjoyment and challenge; the contribution of physical education instruction to students' development of competence and self-confidence; and the use of physical education to promote students' cooperative skills.

**028 Demonstrate knowledge of the roles and responsibilities of physical education teachers in the learning community.**

Includes ways to advocate for physical education in the school and community; strategies for communicating and working with parents/guardians and the community (e.g., PTA, advisory committees) to promote physical education programs and goals; laws related to the rights and safety of the learner and the responsibilities of the teacher (e.g., equity, inclusion, confidentiality, privacy, duty to protect, responsibility to warn); and appropriate ways to consult with counselors and other professionals to assist students.

**TEST OBJECTIVES**  
**FIELD 044: PHYSICAL EDUCATION**

**029 Demonstrate knowledge of methods for developing professional relationships and reflecting on teaching practices.**

Includes strategies for collaborating with school colleagues; the importance and use of self-assessment and problem-solving strategies to reflect on physical education teaching practices; and the characteristics and functions of professional literature and other resources available for professional development (e.g., journals, professional associations, workshops) in physical education.