

## **Fitness Factors: Functional Physiology for 7th Grade**

Moving beyond heart rates, students analyze mechanical levers and metabolic demands to evaluate how physiological adaptations impact real-world performance.

---

**1. A rock climber is traversing a difficult 'overhang' section where they must hold their entire body weight with their fingertips for 90 seconds. Based on the duration and intensity, which fitness component is being primarily isolated and tested?**

- A. Cardiovascular Endurance
- B. Muscular Endurance
- C. Body Composition
- D. Flexibility

**2. When an athlete focuses on increasing their 'lean body mass' while simultaneously decreasing adipose tissue, they are specifically attempting to modify their \_\_\_\_\_.**

- A. Basal Metabolic Rate
- B. Muscular Strength
- C. Body Composition
- D. Bone Density

**3. True or False: Increasing joint range of motion through static stretching can directly compensate for a lack of muscular strength during an explosive movement like a vertical jump.**

- A. True
- B. False

**4. Analyze the physiological demand of 'VO2 Max'. Which component of fitness is most closely associated with the body's maximum ability to utilize oxygen during intense exercise?**

- A. Muscular Strength
- B. Flexibility
- C. Cardiovascular Endurance
- D. Body Composition

**5. In a hypothetical 'Strongman' competition, an athlete must flip a 500lb tractor tire exactly one time. This specific task evaluates which component?**

- A. Muscular Strength
- B. Muscular Endurance
- C. Body Composition
- D. Cardiovascular Endurance

**6. A marathon runner often has a higher percentage of 'slow-twitch' muscle fibers compared to a sprinter. This adaptation serves to primarily enhance their \_\_\_\_\_.**

---

Name: \_\_\_\_\_

Date: \_\_\_\_\_

- A. Flexibility
- B. Muscular Strength
- C. Cardiovascular Endurance
- D. Integumentary Health

**7. True or False: A person can have a high Body Mass Index (BMI) but a healthy body composition if they possess a high percentage of muscle mass.**

- A. True
- B. False

**8. Consider the 'Sit-and-Reach' test. What is the primary limiting factor for a student who cannot reach their toes during this assessment?**

- A. Cardiovascular capacity
- B. Abdominal strength
- C. Joint and connective tissue flexibility
- D. Upper body muscular endurance

**9. The 'F.I.T.T.' principle is used to create training plans. If a coach increases the amount of weight a player is lifting, they are altering the \_\_\_\_\_ variable to improve strength.**

- A. Frequency
- B. Intensity
- C. Time
- D. Type

**10. Which of the following scenarios best demonstrates a balanced integration of multiple fitness components for injury prevention?**

- A. Focusing only on lifting heavy weights to build maximum strength.
- B. Stretching for an hour but never performing any aerobic activity.
- C. Combining core strength training with dynamic flexibility and steady-state cardio.
- D. Only running long distances to minimize all body fat.